

GAMES WORKSHOP®

HOW TO PAINT CITADEL® TANKS





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How to Paint

Citadel Tanks

by Andy Hoare

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Welcome to the latest book in our 'How To' series – *How to Paint Citadel Tanks*. If you've read *How to Paint Citadel Miniatures* and *How to Paint Space Marines*, you'll have a good idea of what to expect within the pages of this book.

How to Paint Citadel Tanks is a comprehensive guide to assembling, painting and modelling any of the many and varied armoured vehicles of the 41st Millennium. And this is an important point – the techniques described within aren't just applicable to the Leman Russ battle tanks of the Imperial Guard or the mighty Land Raiders of the Space Marines. You'll find plenty of techniques you can use on the walkers, skimmers, flyers, super-heavies and even bikes of all the different races of the Warhammer 40,000 universe.

This book caters for everyone who wants to get the most out of the hobby of painting and modelling vehicles. Whether you like to paint individual models purely for the love of doing so, for display, or for gaming, you'll find plenty of practical advice within. We've made an effort to cover a broad range of topics, and many of the tips, tricks and examples have been gleaned from the minds of some of the most experienced and imaginative painters and modellers in the hobby today.

Whatever your level of experience, you'll find something of interest within. We assume those starting out have painted

some Citadel Miniatures and are broadly familiar with the basic techniques involved, but want to learn more, in particular how those techniques relate to painting tanks. We've avoided repeating advice that can be found in the first book in the series – *How To Paint Citadel Miniatures*, in particular subjects such as colour theory, or those with little relevance to tanks such as painting skin, fabric etc.

It is also intended that *How To Paint Citadel Tanks* will be useful to those who have been painting vehicles for many years. It was mentioned before that we've pulled together ideas and advice from many painters and modellers in the writing of this book, but of course none of those august individuals knew every single one of the techniques presented. So even if you are a veteran, chances are you'll pick up plenty of new tips.

We've organised the book to start with the principles of assembling your tank, as well as some detailed advice on going that little bit further by scratch-building extra details. We then proceed to present a wide range of painting techniques, from the essentials of drybrushing to the blending technique used by the painters of Games Workshop's 'Eavy Metal team. There are plenty of examples shown along the way, before we finish off with a chapter of stage-by-stage projects that show how many of these techniques combine to produce a glorious, finished vehicle.

Imperial Guard Leman Russ Punisher



MATERIALS AND TOOLS

Before starting the process of painting your tanks, it helps to gather together the materials you will be using.

There are a wide range of tools and materials available, but don't worry too much about getting hold of every single one – so long as you have a brush, a set of clippers and some plastic glue you can get started straight away and get an idea of what other items you need as you go along.

The next few pages talk about the tools and materials you will most commonly require. All of these can be purchased from Games Workshop's Hobby Centres and are also available from any number of hobby and modelling shops. Specialist stores such as those catering to the model railway hobby will stock a bewildering array of tools, which you can investigate later on.

“...so long as you have a brush, a set of clippers and some plastic glue you can get started straight away...”

SAFETY FIRST

Being safe means understanding the materials you're working with and being careful. There are three main areas to keep in mind:

Knives. Modelling and craft knives are extremely sharp. Always make cuts away from your body in case you slip. Safely dispose of blunt blades and replace them with fresh ones, as blunt blades are more likely to slip in use.

Glue. All glue is toxic. Read the instructions before you start, and always keep the cap on the tube when you're not using it.

Sprays. These are both highly flammable and toxic. Never use them near a naked flame (including gas pilot lights), and only spray in a well-ventilated area.

Green Stuff. This can be irritating to both skin and eyes. It is recommended that you read the instructions on the packaging before use.

Chaos Space Marine
Land Raider



CITADEL TOOLS

Doubtless you're already familiar with many of these tools. Some are commonly found on many hobbyists' work stations, whilst others are a little more unusual. Here is an overview of how they are used in the assembly of tanks.



PLASTIC CUTTERS

Also known as clippers or side-cutters, these are most often used for removing components from plastic frames. They are much better for this task than a hobby knife, as the cut angle leaves less obvious marks behind, meaning less cleaning up of the removed part.



HOBBY DRILL

A hand-operated drill also known as a pin-vice, used for creating very small holes in a model. Good to have available, particularly for hollowing out gun barrels or creating bullet holes in tank armour.



HOBBY VICE

A vice is very useful for holding components securely while working on them with a hobby drill or razor saw.



MODELLING FILES

A set of files is a useful part of any tool kit. They are invaluable for cleaning up mould lines and cutting marks.



HOBBY KNIFE

If you have plastic cutters and files, you'll rarely need a hobby knife. However, it is still a useful tool to keep handy, particularly if you are planning any sort of modification or conversion to your model.



SCULPTING TOOL/GREEN STUFF

Green Stuff is a two part putty that, once mixed, is very useful for filling in gaps between components. It can also be used to create the effect of weld lines between components, as described later in the book. A sculpting tool is invaluable for shaping Green Stuff once applied.



RAZOR SAW

Razor saws are very useful tools for cutting large, straight lines in plastic components or sections of other modelling material such as plasticard.

GLUES

A range of glues is available from Games Workshop, each made with modellers in mind. All three will come in useful when assembling your tanks.

PLASTIC GLUE

Plastic glue, or polystyrene cement, is the ideal glue to use with plastic kits. It works by melting the components together, and makes for a very strong bond. Once the glue is dry, you may find a slight seam along the join – this can be filed down just like a mould line as shown on page 13. When using plastic glue, be especially careful that none spills onto other areas of the model, as it will melt and soften any detail it touches.

SUPERGLUE

Superglue is of most use when gluing metal to metal, or metal to plastic, as plastic glue will not work on any material other than plastic. When used to glue plastic components together, the join will not be as strong as plastic glue, but some modellers prefer this, as it allows the two parts to be pulled apart later if they change their mind on placement.

PVA (WHITE GLUE, WOODWORK GLUE)

PVA isn't generally used for constructing tanks. However, when attaching clear plastic or 'crystal' components such as the canopy of an Eldar Wave Serpent, Falcon or Fire Prism, or the shield on an Immolator, it is really useful.

Plastic glue and superglue will have a misting effect on any clear plastic around the point it is applied, but PVA will not. The only snag is that PVA takes a very long time to set, so you will need to brace the components together and, if you can, leave them to dry overnight.



The glues available in the Citadel range.

i TIP

Both Citadel Plastic Glue and Citadel Superglue are formulated so that they do not set instantly when the two components come into contact with each other. Instead, you have a few moments to adjust the placement and get the join just right. Glues designed for general purpose or DIY use may not be formulated in the same way, so be sure to try them out on some off cuts first.

i SAFETY TIP

All three types of glue, as well as other materials such as spray paints and varnish, give off unpleasant fumes. Be sure to use them in a well ventilated area, and to give any item they are applied to plenty of time to dry.

Most DIY stores sell disposable masks designed to keep paint fumes and the like at bay – these are great items to have around.



CITADEL BRUSHES

Games Workshop produces a wide range of brushes, but most of the time, only the larger ones will be needed when painting your tanks.

Flat brushes are ideal for applying a basecoat, as well as the drybrushing technique, as the shape allows for an even application across the surface. They are available in three sizes. Good drybrushing results can be achieved with brushes that contain a lot of natural hair, as sable, for example, holds more paint than nylon. However, brushes made purely of natural hair will wear out quickly when used for drybrushing, so Citadel Drybrushes are made from an ideal mix of synthetic and sable fibres, making for the best balance of application and hardness.

A number of Detail Brushes are available, which will come in useful when painting markings, crew and intricate details.

The Wash Brush is useful for applying Citadel Washes, as described later on in the Painting Techniques chapter.

The Stippling Brush is used by dabbing the paint onto the surface in a twisting motion, and is useful for camouflage and weathering. You'll find other uses too, such as the unconventional example of applying a wash to a vehicle that is shown on page 41.

Use a cup of clean water to wash your brushes between colours, and clean them with soap when finished. If you are using any of the metallic colours, be sure to use a different cup so that the metallic pigment does not contaminate your other paints.



OTHER USEFUL STUFF

In addition to the specialised tools already mentioned, many of the following items will be handy to keep around. You'll have no trouble picking these up in your local superstore or DIY centre.

- Elastic bands
- Adhesive putty (the blue stuff!)
- Fine grade 'wet and dry' sand paper
- Tweezers
- Pliers
- Disposable latex gloves
- Masking tape
- Kitchen towel
- Steel ruler
- Double-sided adhesive tape.



'EAVY METAL™

The 'Eavy Metal team is responsible for producing the painted miniatures seen in Games Workshop publications. Their task is to paint Citadel miniatures to the highest standard possible. Games Workshop is justly proud of the 'Eavy Metal team and their quest to continually set and raise the standards of miniature painting.

Eldar Fire Prism

by Matt Parkes



The striking markings on this Eldar Fire Prism were achieved by a combination of free-hand and masking techniques. The black basecoat has been highlighted using multiple translucent layers, as shown in the Painting Techniques chapter, and demonstrated in the Stage-by-Stage chapter.



Dark Angels Predator

by Seb Perbet

This Predator battle tank of the Dark Angels Chapter features a strong, bold colour scheme as well as free-hand, transfer and three-dimensional iconography.

Imperial Guard Sentinel

by Neil Green



Techniques for assembling and painting tanks apply just as well to the armoured walkers, drop pods and bikes of the 41st Millennium. Here, parts from several different Imperial Guard kits have been utilised to equip this Catachan Sentinel for an extended reconnaissance mission.



If you look closely at the top of the hull, you'll see that a Grot rigger has left footprints in the wet paint, and a careless mark where he set his paint pot down.



This Battlewagon makes extensive use of drybrushing, as well as washes over those parts painted in metallic colours. Drybrushing and washing are both described in the Painting Techniques chapter.



Blood Axe Battlewagon

by Neil Green

ASSEMBLY TECHNIQUES

Here we take a look at the process of assembling vehicles. To start off, we cover the assembly of tanks as they come 'out of the box'. This is followed by more involved techniques to add extra detail and personalise your vehicles, once the basics are firmly established.

For those only just starting out on the path of modelling and painting tanks, a thorough read of this chapter will set you up for many years of collecting. You may find that it pays to keep things simple for your first tank, assembling it in as straightforward a manner as possible. Once you're happy with the basics, you can introduce more involved techniques as you collect more vehicles.

If you consider yourself a veteran collector of tanks, you will no doubt have assembled many tanks and other vehicles. In this case, you will be more interested in the second half of this section, which deals with adding additional details to your tanks. This contains a wealth of modelling tips, tricks and ideas to make each of your models truly unique.



A dedicated painting desk, making use of the Citadel Paint Station.

A HOBBY AREA ALL OF YOUR OWN

Just as important as having all the right materials to hand is finding a suitable area to work in. It's all too easy to get fired up about the opportunity of painting an amazing tank model, but to neglect the space in which you will be doing so. Perhaps you'll be painting at a desk in your own room, but you might be using a communal space such as a kitchen table. Either way, here are a few considerations:

A permanently set up table is ideal, but this isn't always possible. If you have to tidy your work away after each session, you may find it handy to work on an old tray or piece of hardboard on top of the table. Then, if you need to, you can pick up the whole lot at once and slide it under a bed or on top of a cupboard out of the way. Having to pack everything away each time isn't much fun, wastes precious hobby time and is best avoided if at all possible.

One of the most important factors to keep in mind when it comes to your work area is the light. A desk by a window will give you greatest visibility, but at night it helps to have a good lamp, positioned shining from over your shoulder to minimise shadows. You may also want to obtain a colour-corrected 'daylight' bulb, which shows up the true colour of the paints. Normal bulbs cast a yellow tinge over everything, which makes it hard to see subtle differences in colour, particularly with shades of yellow or brown. Of course this is no problem as long as you are assembling your tank, and it is less of a concern if you stick to using paints straight out of the pot without any mixing. However, if you do like to blend your own colour combinations then a daylight bulb is really worth getting hold of – otherwise you may be surprised by your model's appearance when you do see it in daylight conditions.

Don't scrimp on a comfortable chair. You'll be spending long hours concentrating on your tank modelling project, so avoid backache by not perching on an uncomfortable stool. And don't forget to take regular breaks too – stretch your muscles and allow your eyes to relax.

Also bear in mind the surface on which you will be working. If you are fortunate enough to have your own, dedicated painting table (lucky you!) then you may not be that concerned about spilling paint on it. But experience has taught us that partners and parents will think poorly of us and our hobby if we leave precious oak tables in anything less than a pristine state. A thick layer of newspaper will absorb any spillages, but you'll also need card or hardboard to protect the table from any cutting you'll be doing as you clean up your models. Hardboard can also be used as a tray for moving your painting area if you have to.

PREPARATION

The preparation stage of any construction project is in many ways the most important part. Getting things right early on will lead to a better end result, even if you do make a few mistakes along the way.



CLEANING

You may sometimes find that over-enthusiastic handling of a plastic frame leaves greasy finger marks that may affect the way paint or glue takes to the surface. On occasion a small amount of release agent, a by-product of the moulding process, may be present. The best way to get rid of either is to wash the frames in warm soapy water. Once cleaned and dry, the surface of the plastic will take glue and paint without a problem.

CLIPPING OUT THE PARTS

Plastic models usually come attached to a frame and the easiest way to remove them is with a pair of plastic cutters. The blades of the clippers are angled, allowing you to cut at the best angle without damaging the components. In general, try to align the flat side of the blade at 90 degrees to the surface of the part you are removing, as shown. When removing smaller or more delicate parts from a frame, cut away the surrounding runners (the framework holding the part) first. You can then trim off the remaining parts using a hobby knife, and finally file down any resulting detachment scar.

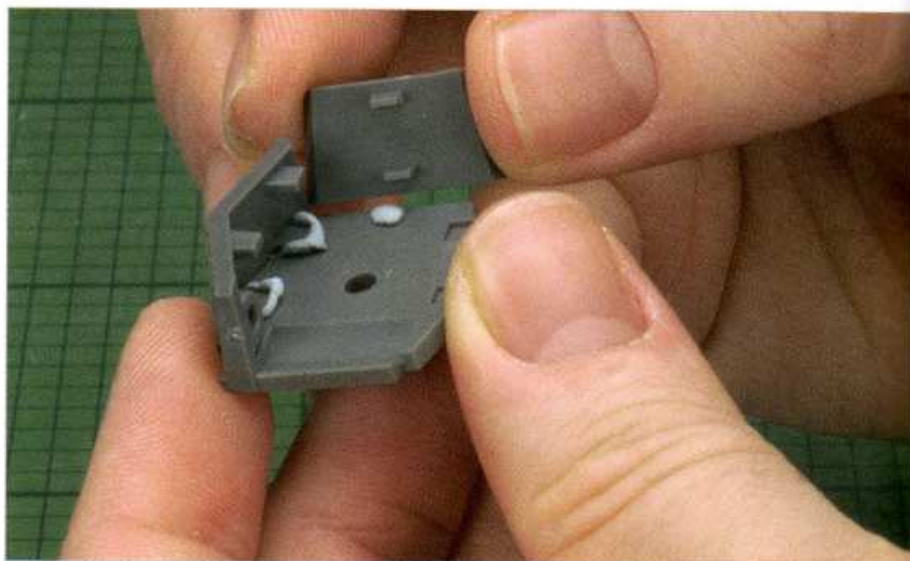


The Rhino is the main transport vehicle of the Space Marines, Chaos Space Marines and Sisters of Battle. The chassis also forms the basis of many other vehicles, such as the Predator, Whirlwind and Immolator, all of which feature additional turrets or weapon systems mounted on the basic Rhino body.



DRY FITTING

Sometimes you'll need to 'dry fit' part of a tank in order to try out a particular arrangement of parts, or just to make sure you're happy with the construction before committing yourself to gluing the components together. In this picture, the side sponson turrets on a Baneblade are dry fitted using adhesive putty. This gives you the opportunity to make sure the parts are being assembled in the right order.



SUB-ASSEMBLY

Many tank kits include multi-part sections that are best assembled on their own before being attached to the main body of the vehicle. You can then attach the sub-assembly to the main hull before painting the whole tank, or you can paint it on its own and then attach it last of all. Leaving a section separate is especially useful if the part requires a lot of detailed painting. It is a lot easier to manipulate a sub-assembled part, allowing you a degree of brush control that is not possible when the part is attached to the vehicle.

MOVING PARTS

Many kits feature weapons on movable mounts, making it possible to point a tank's weapons towards an enemy during a game for example. It's a good idea to decide before you begin whether you want such weapons to move, and take extra care when gluing adjacent parts. Be sure to check out the instructions that come with the kit, as these clearly indicate which parts shouldn't be glued if you wish the weapon to move.



MOULD LINES AND SEAMS

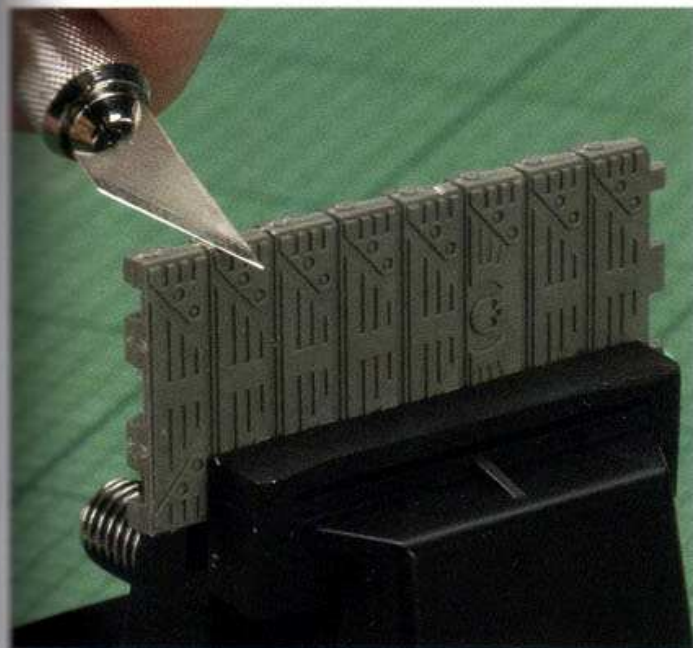
Plastic components are made in steel moulds, and although the two faces are held together at very high pressures, a small amount of plastic sometimes escapes, leaving a thin mould line around the part.

A good way to remove mould lines is by 'back-scraping' them with a sharp scalpel. Gently drag the blade along the line, angling it so the blade is not cutting into the component, but being moved backwards along it.

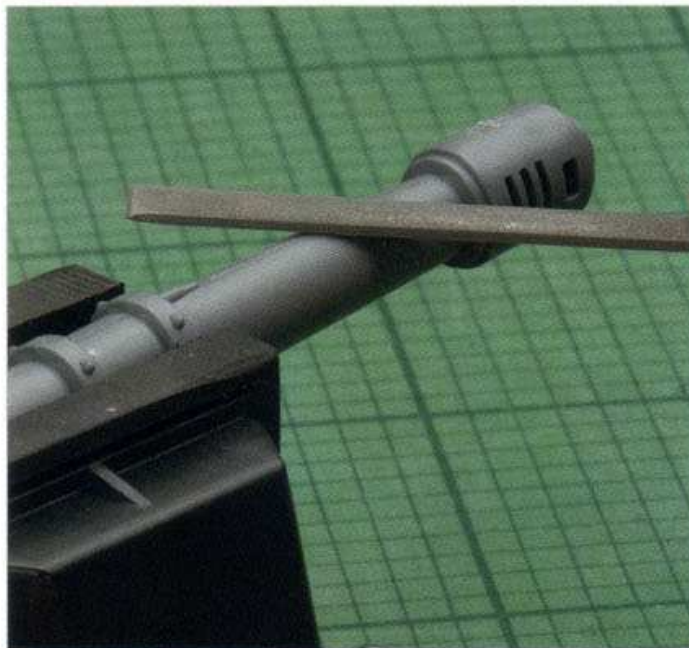
If the part is cylindrical it's best to use a modelling file or some sand paper, applied in a gentle, rocking motion as

shown in the second picture below. This is better than back-scraping, which will result in a flattening of the round shape if not applied carefully.

Many elements of a vehicle will be made from one or more components – the more three dimensional and complex the shape, the more parts it will be made from. It is not uncommon for the seam between two parts to be visible once they are glued together – sometimes a thin line of glue will be visible too. Back-scraping, filing and sanding work just as well if you need to remove a seam line, so long as the glue is completely dry.



Back-scraping the seam on a section of tracks with a hobby knife.



Filing the seams on a Baneblade cannon with a modelling file.



The Tau Piranha is a great example of a vehicle with detachable parts that you might choose not to glue to the main body. The Gun Drones at the end of each wing are designed to rotate, and in the game they can actually fly away on their own.



ELASTIC BANDS

So that you aren't sitting around holding your vehicle together while the glue dries, it's well worth having some elastic bands to do the job for you. You can do this at various stages of the project, such as the sub-assembly of track units. Using this trick results in a very clean seam between components. This is particularly important if you plan to drybrush the vehicle during the painting stage, because drybrushing (described in the Painting Techniques chapter) shows up detail, but it also shows up any construction flaws that creep in at this stage.



SINK HOLES

You may occasionally find a small depression in the centre of a component. This is called a sink hole and is a by-product of the plastic injection moulding process. Although a rare problem, it is worth knowing how to fix in case you do encounter one. This method can also be used to fill in a hole made accidentally during an earlier stage of the assembly process.



A small sink hole at the base of a Baneblade's autocannon.



A small blob of Green Stuff is pressed into the depression, and smoothed down with a sculpting tool. Once painted, the sink hole will be invisible.

SANDING

Sanding is the best way to deal with the odd glue spillage or fingerprint. Be sure to use the finest grade of 'wet and dry' sandpaper you can find so you don't end up with scratches left in the surface you're meant to be repairing.



TIP

In the tip above we've used Green Stuff to fill the sink hole, as this material is easy to get hold of. If you have access to a specialist model shop though, you might like to try hobby filler, which takes the form of a putty and comes in a tube. Once dry, this is easily filed or sanded down to a smooth finish.

PLASTIC AND METAL MIXED KITS

A small number of Citadel vehicle kits consist of both plastic and metal components. In other instances you may find yourself adding metal components from other kits, thereby creating a uniquely adorned vehicle. When assembling such a kit you will need to attach the plastic and metal components to one another using superglue, as plastic glue won't bond metal. If the metal part is large and heavy it may require pinning. To achieve this drill a hole in one of the parts that are to be joined (1), and insert a small length of brass rod or a cutting from a paper clip into it. Paint a small amount of a bright paint onto the end of the pin, and use this to mark where the hole in the other component will be drilled (2). Drill the second hole, and pin the parts in place (3).

These techniques also apply to kits that feature both plastic and resin parts, such as the conversion kits offered by Forge World. Although resin is much lighter than metal and therefore rarely needs pinning, superglue will be required to join plastic and resin parts together.

The Sisters of Battle Exorcist features a large and highly detailed weapon, made of metal, on the back of a Rhino body. If you use superglue on its own to join the metal and plastic components, you may find that the weight of the metal causes a weak join. This is just the sort of kit that benefits from pinning.



The Exorcist's main weapon resembles an ornate pipe organ. For suggested base, midtone and highlight combinations for metallic vehicles, see the Tank Colour Guide at the end of the book.



ADDITIONAL DETAILS

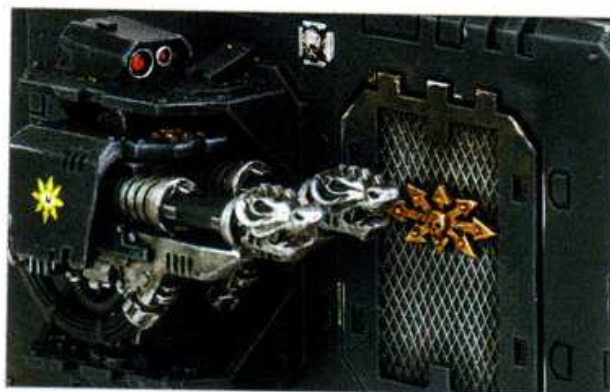
It is possible to go that little bit further when assembling your vehicles, adding all manner of small (or large), details to your models. These can range from the simple to the fiendishly ingenious. Plenty of examples are shown over the next few pages.

DRILLING OUT GUN BARRELS

This is a tip that can be applied to the weapons of almost every Warhammer 40,000 race, and not only to their tanks. Here's how to use a pin vice to drill out the gun barrel, creating a more realistic weapon:

First, use a small drill bit or a hobby knife to create a pilot hole where you will drill (1). Once you have your pilot hole, use a larger drill bit to create the hole to the size you require (2). You can use this technique on other details too, such as exhausts.

Tip: Make sure the glue has completely dried before drilling the hole, or the two parts may separate.



CHAOS SPACE MARINE WEAPON BARRELS

The Chaos Space Marines vehicle accessory sprue includes gargoyle-like heads, which can replace weapon barrels or exhaust pipes. To give your tank a Chaos flavour, use clippers to remove the existing gun barrel or exhaust pipe, then glue the new one in its place. If you want to go one step further, use a pin vice to drill out the 'throat', as described above, being careful not to damage the teeth as you do so. There are two heads on the accessory sprue. The blunter of the two looks great on the heavy bolters or as an exhaust pipe, while the pointier looks good used on a lascannon – though of course the choice is yours!

FITTING TOW CABLES

Both the Imperial Guard accessory sprue, and the Space Marine Razorback sprue include stowed tank tow cables. These can be mounted on flat surfaces, but they can also affix to irregularly shaped surfaces with minimal effort. To get the tow cable to look as though it is sagging under its own weight, bend the middle down as shown in the photo.



SMOKE GRENADES

This tip can be applied to the vehicles of the Imperial Guard and the Sisters of Battle, and adds character by making it appear that one or more smoke grenades have been fired in previous engagements, and not yet replenished. The Sisters of Battle and Imperial Guard smoke grenade launchers represent three small launch tubes, each loaded with a single smoke grenade. To make it appear that a grenade has been fired, simply snip off the end of the grenade with your clippers, and then use a pin vice to hollow out the tube.

WELD LINES

Weld lines can be added where one panel or component meets another to give your tank a rough around the edges, hand-made appearance.

Once you have glued a sub-assembly, such as the front sponson, to the hull, roll a very thin sausage of Green Stuff to cover the join. Using a chamfered (diagonally cut) piece of round brass rod (1), or a cocktail stick, lightly press into the putty sausage to force it into the join and create a welded effect (2). This gives the tank a battle-worn appearance, where the crew have carried out field repairs (3).



RIVETS

Many people like to add additional rivets to their tanks. There are many different ways of doing this, ranging from cutting existing ones from an unused tank kit component, to using a special hole punch device.

One way to make rivets is to cut thin slices from the end of a plasticard rod. You can then carefully glue each to your model, 'skewering' each tiny rivet with a scalpel, dipping it in a little decanted plastic glue, and attaching it to the tank. You may lose a number of your rivets in the glue, but the end result will be well worth the effort. For a neat line of rivets, mark out the position of each using a small marker pen.

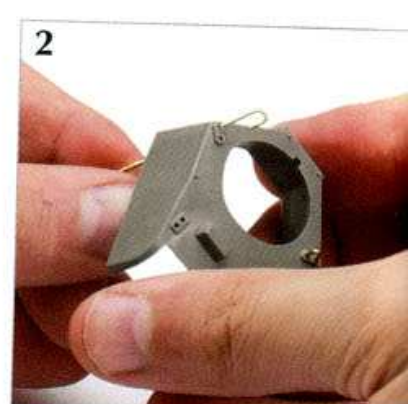
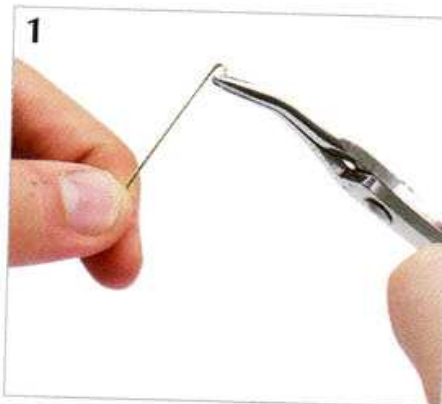
This Imperial Guard Leman Russ features several detailing techniques, including drilled-out gun barrels and a removable commander (see over the page for details of this technique). The plastic antenna has been replaced with one made from brass rod. This was mounted in the original antenna base, in a hole drilled with a pin vice.



TURRET HOOKS

The Leman Russ features a number of turret hooks (which would be used during major maintenance to winch off the turret). You can make these even more authentic using wire loops, as shown here.

Snip off the plastic hooks on the turret and drill 1mm wide holes into the housing brackets. Using pliers, curl the end of a piece of brass rod to create a loop (1). Thread all the metal hooks into place (2), then glue them in position from the underside and snip off any remaining lengths of wire.



AERIAL RECOGNITION SYMBOL ▶

Here is a simple technique which can be used to make flags, aerial recognition symbols or just tarpaulins covering stowage or an open section of a tank. Take some kitchen paper, preferably paper with a slight texture, cut it to the required size and soak it in PVA glue. Then drape the sheet across the area of the tank you wish to cover, pressing it down into the recesses as you go.



ARMOUR PLATING ▼

You can add additional armour to your tanks, representing the crew fixing metal plates for some extra protection in battle. This works best on areas without a lot of surface detail, such as the flat sides of a turret. Use 1 or 2mm plasticard cut into the appropriate shapes for the surface. You can further detail these by using the welding or riveting techniques seen on the previous pages.



HINGED HATCHES

Many tank kits feature hatches and cupolas, which can be left closed or open. Alternatively, you might decide to make a working hinge with a small length of brass rod. This allows a commander to be placed in the hatch or left out.



Using a pin vice, drill out the hinges on the cupola.



Drill through the base of the hatch.



Cut a length of brass rod to a couple of millimetres longer than needed. Once the rod is inserted you can trim it further using clippers. The trick here is to make sure the rod is a snug fit inside the drilled out hole, so that it doesn't slide out.

If you have articulated the hatch as described above, you might like to make your tank more versatile by making the crew removable. This can be achieved in more or less the same way with Imperial Guard, Space Marine Sisters of Battle and Chaos Space Marine crew models.



Trim away the rim at the crewman's base.



Cut a circular piece of card and mount this beneath the cupola, onto which the crewman can be placed.

EXTRAS

Many of these small scratch-building projects involve the use of additional materials such as plasticard, brass rods and mesh. Most of these are available from specialist model-making stores. Here are a few materials you might find useful.

- 1mm brass wire (for pinning)
- Fuse wire (for cabling)
- 2mm brass wire (for handles etc)
- 0.5mm, 1mm and 2mm plasticard (for extra plates)
- 0.5mm, 1mm and 2mm plastic rod (for rivets)
- Guitar string (for textured cabling)
- Brass mesh (for grilles)
- Thin card (for pennants)
- Clear plastic sheet (for canopies)



FINE DETAILS

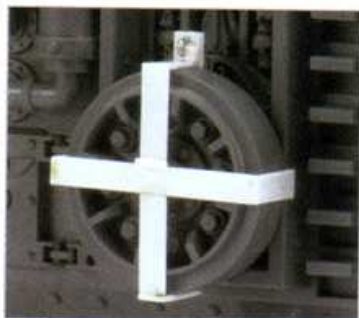
Here's an example of a whole plethora of detailing techniques in action, all on a single vehicle. In this case they are shown on a Baneblade, but most can be used in one form or another on any tank.



The turret hatches have both been hinged, as shown on page 17.



The hinged panels have been detailed by scoring out the panel lines and adding additional plasticard rod to the hinges.



A spare road wheel in a mounting made from plasticard strips.



Ring-mounted heavy stubber.



The ends of the fuel drums have been capped with plasticard, and detailed with brass etched Imperial Eagles.



Hatch handles, made from fuse wire.



A tow cable, made by twisting lengths of fuse wire together, and attached to the ends of the plastic tow cable eyes.



Extra wiring on the smoke dischargers.





Double-width rolls, made by sawing two rolls off at the ends and joining them together.



The stowage bins have been made to appear so full of the crew's kit that one can't fully close!



Various items of stowage.



Brass rod whip aerial.



Fuse wire cables added to the engines.



The engine covers have been hinged, and detailed with brass mesh and plasticard strips.



These lights have additional protection, made from fuse wire rods.



Tool retainers made from plasticard strips.



Hull casting number, made by (very carefully) shaving the number from a plastic frame with a hobby knife.



Vent holes have been drilled into the end of the Demolisher cannon.



Plasticard mudflap extension.

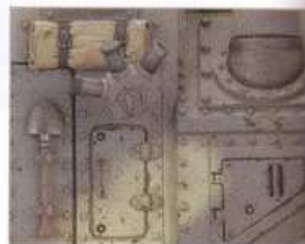


The solid rubber road wheel tires are made to appear distressed by cutting into them with a hobby knife.

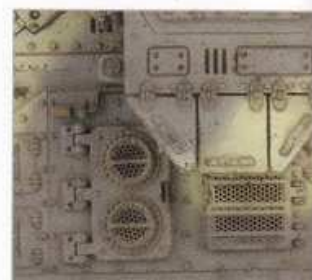
SHOWCASE

Baneblade
by Mark Jones

SHOWCASE



Here's the Baneblade shown on page 20-21, now fully painted. The painting has really brought out all of the fine details applied during the assembly process. For the colours used in the Steel Legion camouflage pattern see the Tank Colour Guide at the end of the book.



Command Land Raider

by Colin Grayson

This Land Raider features lots of additional detail, made from spare kit components and pieces of plasticard. Much of the detail represents communications and sensor gear a Space Marine commander might need in battle. Perhaps the cleverest detail is the exhaust unit, which has been split in two and each half mounted on a side, in order to make space for extensive comms equipment at the rear.



SHOWCASE

Baneblade

by Graham Davey

This Baneblade has been made more 'gothic' by the addition of plenty of ornate details. Extensive use has been made of plasticard bands, onto which have been mounted dozens of rivets (described on page 17). You can also see the cunning use of pieces of the City Ruin kit on the front of the track units.



PAINTING TECHNIQUES

This chapter of How to Paint Citadel Tanks presents a wide range of painting techniques, from those applicable to almost every project you will undertake, to some that you might only use on a real centrepiece model.

This section approaches each of the painting techniques in the order you will mostly likely tackle them in during a project. We start with an explanation of the various methods of painting the surface areas of the vehicle, starting with the

essentials of undercoat and basecoat, followed by methods such as drybrushing and blending. We then take a look at camouflage patterns and markings, with plenty of examples to follow. Lastly, we cover battle damage and weathering, with the aid of some detailed examples provided by plenty of experienced tank modellers.

You can use this chapter as a reference as you work your way through your project, following each technique as you come to it. Or, you can read through the chapter and plan out which of the techniques you will try your hand at. It's unlikely you'll need all of the techniques in a single project, but they will all be useful at some point.



The author's extensive collection of Imperial Guard tanks – every one with extra details added and painted using a variety of the techniques from this book.

WHAT TO DO FIRST?

With such an array of techniques, it is worth having an idea of what order to do them in! The contributors to this book generally agree on the following overall sequence, within which you can choose the specific techniques you want to use:

1. Paint the hull and other surfaces

Pages 26-41



2. Add camouflage and markings

Pages 43-57



3. Apply battle damage and weathering

Pages 62-71

The key point to note about this order is that the weathering is applied over the top of the markings (including any waterslide transfers) rather than the other way around. This is so the markings will look just as worn as the rest of the tank.



UNDERCOATING

Once your vehicle is assembled and the glue entirely dry, you'll need to undercoat it before painting. This primes the surface of the vehicle so the paint adheres to it better. You can either undercoat your model with a brush, a spray or the Citadel Spray Gun.

SPRAY UNDERCOAT

The paint used in Citadel Sprays is specially formulated for use as a primer. Spraying is best done outdoors as the fumes are toxic (and unpleasant to other members of the household!). Do your spraying in an open area, or if you can't find one, place an old cardboard box to catch the overspray and spray your models inside this box. This will avoid the spray being blown around by the wind, which will result in a lot of wastage.

A light coating is all that is required as too much spray will fill the detail of the model. For an even coverage, apply the spray in constant, smooth sweeps, from 12" to 18" away.

If your vehicle has a lot of recesses into which you find it hard to spray, wait until the undercoat is dry and then use a large brush to apply watered-down paint of the same colour. If you try to use the spray to get into all the nooks and crannies you may find that some areas become clogged with paint in the process, obscuring the detail.



CHAOS BLACK UNDERCOAT

Black is the most common colour that vehicles are undercoated, for a number of reasons. In most instances, the sorts of colours that the tank will end up sit best over a black undercoat. The deep tones of the Chaos Space Marines, the bold heraldry of the Space Marines, the metallic surface of the Necron Monolith and the utilitarian camouflage of the Imperial Guard all work best with a black undercoat. Of course, there are many armies that feature black as a predominant colour, such as the Black Templars.

Another reason to use a black undercoat is that it provides the model with an instant 'black lining' effect. In essence, the most recessed details are left black in order to accentuate the surface detail and the difference between two adjacent areas. By undercoating the vehicle black, this stage is already complete.

Depending on the temperature and humidity of the area in which you apply a spray undercoat, you may find the surface very matt in finish or even slightly misty. If this happens simply use a large brush to apply watered down Chaos Black over the whole area and the finish will be restored.



This Black Templars Rhino was undercoated Chaos Black. This is a great example of an undercoat serving as a basecoat too.

SKULL WHITE UNDERCOAT

Many of the bolder colours in the Citadel paint range give a very bright coverage when applied over a white undercoat instead of a black one.

A white undercoat is a good idea to use on such vehicles as Ork tanks, walkers and jetbikes in order to really make the warworld's livery stand out. This is especially true of the bold colours found on Saim-Hann and Iyanden vehicles.

There are two ways of applying white undercoat. The first is to apply only a light 'key', over which an opaque layer of another colour will be applied. The second way is used when the colour to be applied over the undercoat is more translucent, as is the case with the very brightest of yellows such as Sunburst Yellow. In this instance, you will need to apply a more substantial undercoat, as much of it will be visible through the colour. Even better is to apply a couple of light undercoats. Remember to apply the undercoat in even sweeps, and beware of obscuring detail.

This White Scars Drop Pod was given a Skull White undercoat. The only shading that was required was thinned-down Space Wolves Grey applied in the recesses and no highlights were needed at all. The bare metal panels were then blocked in with Chaos Black, and painted Boltgun metal. Also note the directional weathering, an effect created by drybrushing lines of Scorched Brown where the pod would be scorched entering a planet's atmosphere.



This White Scars Rhino was painted using the same techniques as the Drop Pod. The red markings appear especially bold, because they were painted using Blood Red. In common with many of the paints in the Citadel Colour range, Blood Red has a slight translucency and therefore appears brighter over a white base.



CITADEL SPRAY GUN

Games Workshop produces a handy (and very stylish!) paint gun, which has a range of uses when it comes to painting your tanks. Here's how to get the most from it.



Spray in broad sweeps, starting just off to one side so you don't get a build up at the starting point. It's better to carry out two or three quick passes than one slower pass, as this will avoid unsightly pooling of paint in recessed areas of the model.

The Citadel Spray Gun's primary function is to basecoat your models with Foundation paint, though washes and other colours can also be applied. When used to paint tanks it can also be used to paint striking camouflage patterns.

Choose your colour and pour it into the paint jar to the required level, using the measure on the jar. Add water to the appropriate level. Give it a good stir to mix. Make sure the top of the jar is fastened securely and then attach it to the Spray Gun.

Once you have connected the propellant, your Spray Gun is ready to use. Before you start spraying paint onto your models, it is always best to do a quick test on a spare piece of card or plastic frame, to make sure the paint is coming out in the required consistency. A few quick bursts are all you need. Now is a good time to adjust the spray nozzle to the required angle.

Once you're happy with the paint consistency and the nozzle adjustment, you can start spraying. Use the Spray Gun as you would a can of spray paint – hold the gun about 12" to 18" from your target and spray in short bursts, gently moving the gun from side to side. The grip and trigger system of the Spray Gun are not just there for aesthetic reasons, but are designed to give you more control when you are spraying.

When you've finished spraying, disconnect the paint jar and pour any excess paint into a spare pot – you can use this again another time. Give the paint jar a good clean under a running tap and then fill it up with cold, clean water. Insert the paint jar back into the Spray Gun and then operate until all traces of paint have gone and the gun is just spraying out water. Finally, disconnect the propellant, empty your paint jar, and put your Spray Gun away until you need it again.

i TIP

For an invaluable demonstration of the Citadel Spray Gun in action, log on and check out the video on the Games Workshop website: www.games-workshop.com

PROPS

You'll have noticed the use of a wooden prop in the undercoating and basecoating shots shown so far in this chapter. When spraying your tank you'll often need to find some way of supporting it, as you'll cover your hands in paint if you hold it yourself while spraying, and risk getting smudged fingerprints on the still-wet undercoat.

The best form of prop is a short length of wood, or a small, sturdy cardboard box. To the upper surface of this is applied a length of double-sided adhesive tape or some adhesive putty, with which the tank is secured.

A prop will also come in useful if you plan on painting free-hand details onto your tank, as you'll be able to hold it nice and steady. Check out the stage-by-stage Eldar Falcon on page 90 for some amazing free-hand decoration. The upper and lower parts of the tank were kept separate, as shown here, mounting one on a prop and not joining the two together until the very end.



“The grip and trigger system of the Spray Gun are not just there for aesthetic reasons, but are designed to give you more control.”

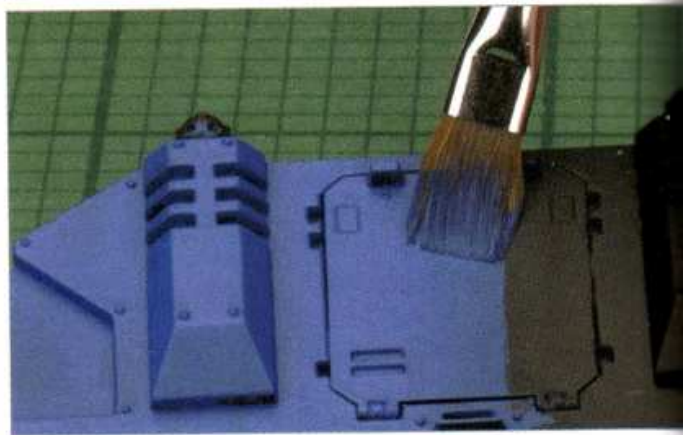
The Space Marine Land Raider Redeemer is painted in the bold green livery of the Salamanders Chapter. The Citadel Spray Gun is ideal for basecoating large, flats areas such as this. In this case, the paint used was Snot Green, which was built up in several layers over a Chaos Black undercoat.



CITADEL FOUNDATION PAINTS

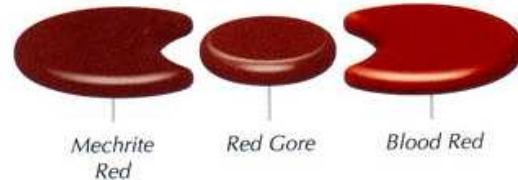
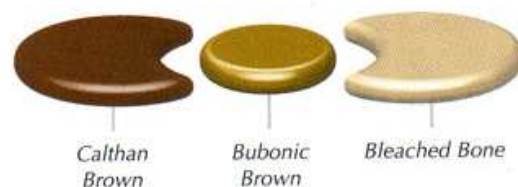
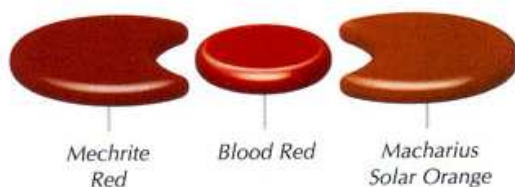
The Citadel Foundation paint range is specially formulated to provide smooth coverage in one application, over any colour of undercoat. This is possible because the high opacity Foundation paints contain a large amount of pigment, ensuring they will cover even over black.

Foundation paints are especially useful when it comes to basecoating tanks. This is because large parts of the models are flat and therefore a smooth basecoat is essential as any subsequent drybrushing or washing will show up even the slightest unevenness.



THE CITADEL COLOUR SYSTEM

The paints of the Citadel Colour system can be combined in an infinite number of ways to make any colour you can imagine. Here are a few examples that you may find useful, with the base, midtone and highlight colours shown.



APPLYING A BASECOAT USING CITADEL COLOUR

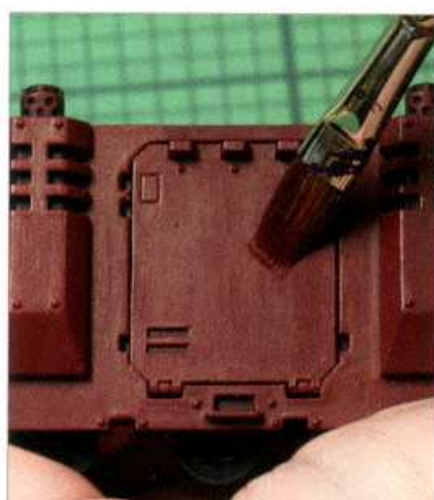
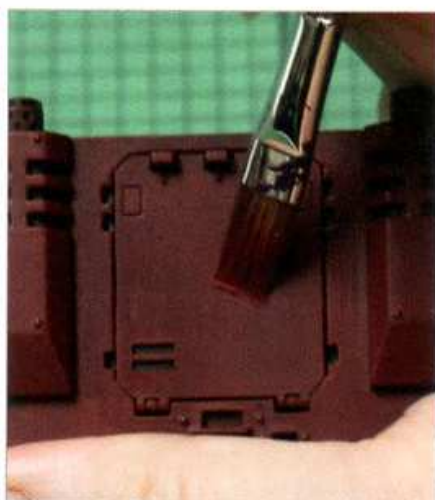
It's not only Foundation paints that can be used to paint the sort of large, flat areas found on tank models. Any of the colours in the Citadel range can be used for this purpose.

While the Foundation paints are formulated for density of pigment and evenness of coverage, the bulk of the Citadel Colour range has been designed for boldness of colour. This opens up a huge range of potential colours you can paint your tanks, from the dark and brooding to vivid and striking.

As most basecoats are applied over a black undercoat, you will need to build up the colour patiently, one application at a time. It is far preferable to apply the same colour in three thin coats than it is to apply it in one thick coat. This is because any unevenness in the initial application will really stand out by the time you have applied a wash and a drybrush to the area.

BUILDING UP A BASECOAT OVER A BLACK UNDERCOAT

When applying Citadel Colour over a black undercoat the trick is to almost drybrush the paint on, building up the colour over two or three applications. In the example below, Scab Red is built up in three stages over a black undercoat.



BUILDING UP A BASECOAT OVER A WHITE UNDERCOAT

When working up from a white undercoat, it often helps to thin each layer of the base colour with a little water, in order to ensure a smooth coverage. The first application may appear streaky or uneven, but by the third coat, an even, smooth coverage is achieved. Here we see Golden Yellow being applied over a Skull White spray undercoat.



DRYBRUSHING

Drybrushing a tank achieves two main ends. Firstly, it picks up details such as raised edges, rivets, grilles and the like. Secondly, drybrushing a flat area with no raised detail deposits a very fine texture across it, creating a pleasingly realistic surface quality. By drybrushing consecutively lighter toned applications of paint, the effect of light falling on the surface is achieved.

The drybrush technique is simple to learn and, if carried out correctly, can be used to create spectacular effects. Choose a colour that is slightly lighter than the basecoat over which it is to be applied. This could be the same colour as the basecoat with Skull White or another lighter colour added, or it could be another paint from the range.

Use either a brush designed for drybrushing, or an old brush you have set aside for the purpose, and load this with the paint to be applied. Then, wipe almost all of the paint off of the brush onto an absorbent surface such as kitchen towel or newspaper. Next, lightly stroke the brush over the basecoat, using a circular motion. You will find that a very small amount of the paint is deposited on the model's raised features, picking out even the smallest feature in crisp detail. The circular motion is very important, as using straight brush strokes can result in visible streaks.

When drybrushing the sort of large, flat surfaces found on many tanks, it pays to use a very small amount of paint per application. In fact, you should almost be scrubbing the brush across the surface to deposit any paint at all – this will produce a very subtle effect as subsequently lighter tones are drybrushed on.

This Imperial Guard Chimera has received a light drybrush of Camo Green as a highlight for the Catachan Green basecoat.

If you are drybrushing over a fairly light tone, you may find that the process creates highlights, but lacks depths. One way of ensuring a good contrast between crevices and raised edges is to apply a darker wash over the basecoat colour before drybrushing, as shown on page 40.

WHEN NOT TO DRYBRUSH

Some tanks are more suited to the drybrush technique than others. Those with hard edges and plenty of raised detail are ideal candidates – Space Marine and Imperial Guard tanks, for example. The vehicles of the Eldar and the Tau are less suitable for drybrushing and more suited to the extreme highlight technique described on page 38. This is not a hard and fast rule, however, so feel free to experiment with whatever technique takes your fancy.

FOUNDATION PAINTS AND DRYBRUSHING

Citadel Foundation paints are very good for applying the very final stage of a drybrush, as their high opacity means that even the lightest touch will really stand out. Beware of over-applying Foundation paints using the drybrush technique, as their dense pigment can become visibly powdery if overused.

MOULD LINES

Building up the layers by drybrushing in this manner will make every last detail of the model stand out, and so it is very important to remove any mould lines carefully before the model is even undercoated, as described on page 14. By the end of the drybrushing process it'll be too late to file down any mould lines without undoing a lot of hard work, so it pays to deal with them first!



In the way of an introduction to the drybrush technique, here is a simple, three-stage explanation, as well as examples showing drybrushing with different combinations of colours. You'll find more involved examples over the page.



In this drybrushing example the surface of the vehicle is first basecoated with an application of Graveyard Earth.



A midtone of Desert Yellow is drybrushed across the entire surface, so as to pick up even the surface texture.



A highlight of Dhenneb Stone is drybrushed, very lightly so it only catches the sharpest edges and the raised details.



Necron Abyss basecoat, Enchanted Blue midtone and Ice Blue highlight.



Adeptus Battlegrey basecoat, Codex Grey midtone with a highlight of Fortress Grey.



Codex Grey Grey basecoat with an Astronomican Grey midtone and highlighted with Skull White.



A Knarloc Green basecoat, Gretchin Green midtone and Rotting Flesh highlight.



The Large Drybrush is ideal for use over the whole surface of a vehicle, while the Medium Drybrush can be used to pick out details and edges.

TIP

You may sometimes find that a particular paint is too thin or opaque to drybrush. It is possible to thicken the paint, by leaving the lid off for a few hours, stirring it every now and then. The water in the paint will slowly evaporate, increasing the pigment to water ratio and with it the paint's opacity, making it ideal for drybrushing. Just remember to check the pot every so often so it doesn't dry out completely!

DRYBRUSHING EXAMPLES

There are plenty of applications for the drybrushing technique – here are some examples of how the 'Eavy Metal painters use it.



Even surfaces without a heavy texture can be subtly highlighted with a light drybrush, as seen on this Leman Russ Demolisher.

An Ork Trukk – a good example of how drybrushing is used to build up the highlights on a metallic surface.





The sharp edges on this Chimera really show up once a drybrush is applied.



Drybrushing also adds surface texture.



PAINTING

A heavy drybrush of Adeptus
Bullgry creates a realistic
concrete dust effect on this
Imperial Marine Vindicator.



LAYERING AND BLENDING

Layering is the practice of applying successively lighter coats of paint to simulate the fall of light on an uneven surface. Blending is a technique whereby the edge of each of these layers is blended, or feathered, over the top of the previous one. In practice, the two techniques are closely related, so we'll address them both at once.

You'll realise of course that drybrushing is also used in successively lighter coats. The main difference with layering is that the paint should be wet (even watered-down), and has to be applied with considerably more control. This requires a great deal more patience, especially on a model the size of a tank, but results in a much cleaner finish.

To start off, a base colour is applied over the whole surface. Then a slightly lighter colour is painted over it, leaving the base colour visible in the more recessed areas. More highlights are applied, each lighter than the last, until a smooth graduation between light and dark is achieved.

By watering down each layer of paint, to around a 50/50 paint/water mix, you will find that each layer merges with the previous one. The more applications you use, the smoother the transition. Games Workshop's 'Eavy Metal' team apply as many as a dozen successive layers, resulting in flawlessly smooth graduations.

Layering becomes blending when the edge of each successive coat is faded out (or 'feathered') so that the highlight blends into the colour beneath. This takes a great deal of practice to master and many painters see this technique as the pinnacle of their art. You'll see a lot of amazing examples amongst the top-ranked entries in Games Workshop's Golden Demon painting contest.

Layering and blending are generally used on vehicles with a curved or undulating shape, such as those of the Eldar and Tau. But the techniques can be applied to any model if you find it suits your style.

"This takes a great deal of practice to master and many painters see this technique as the pinnacle of their art."

SIMPLE THREE-STEP LAYERING

Three-step layering, which uses three applications of existing colours from the Citadel paint system over a basecoat, is a great way to learn the basics of the layering technique. Using only a few layers will leave visible steps between each application, but this can be minimised by keeping the paint watered down.



Over a basecoat of Adeptus Battlegrey, a 50/50 mix of Codex Grey and Fortress Grey is painted up to the edges using a Fine Detail Brush.



The second highlight is a touch lighter than the first, and applied in thinner lines on the outer edges of the details. Here, Fortress Grey is used to lighten the previous layer.



The third and thinnest highlight is added, using Space Wolves Grey on the very edges of the detail. Note that all three layers are still visible.

EAVY METAL BLENDING

This Eldar Wave Serpent has been painted by the 'Eavy Metal team to the very highest standard, using the blending technique. The overall shape of the vehicle shows the technique off very well indeed, from the rich shadows visible around the engines, to the vibrant yellow used to accentuate the sharp edges.

Note also the black freehand detailing, depicting the stylised thorn pattern associated with the Biel-Tan Craftworld. The pattern too has blended highlights of grey over the black base colour. You will notice that the grey applied on the upper areas of the hull and vanes is lighter, following the rise and fall of the hull. This creates a realistic effect of the consistent fall of light across the multicoloured surface

i TIP

The 'Eavy Metal blending technique is demonstrated in all its glory on page 90, and the thorn pattern is shown on page 54.



The green surface is fully blended, from the deepest recesses to the sharpest edges.



Blending is also applied on the white of the weapons, creating a consistent effect across the vehicle.



Even the freehand decoration is blended.

EXTREME HIGHLIGHTING

Extreme highlighting, also called edge highlighting or just edging, is a technique in which only the very edges of surface features are picked out. This is achieved by applying a very thin line of highlight colour along the edge to be highlighted. The line can be blended if you wish, or applied in successively lighter tones, as shown below.

Extreme highlights are most suitable for use on tanks that feature clean, bold lines. The technique is ideal for Tau and Eldar tanks, but it can also be used on the tanks of any army, depending on the overall effect you are looking for. In general, extreme highlights are best applied if you are looking to accentuate a crisp detail.

When applying extreme highlights, keep in mind that you are essentially simulating the fall of light on a hard surface, so it pays to remember the direction from which that light would be falling. In most cases the brightest, boldest applications of the highlights will occur on the upper edges – the ones closest to this theoretical light source – as demonstrated by both examples on the opposite page.

Some painters like to play around with this aspect of the technique by changing the direction from which the light is falling. The light might be coming from the left or right, or straight above. In any case, the technique is the same.



In this example a basecoat of Mechrite Red is applied.



Apply a midtone colour, in this case Blood Red, to the upper edges.



Apply an even lighter colour, such as the Blazing Orange shown here, to the very edges, within the midtone.



An example of extreme highlighting, used on the hull and the flamestorm cannon cowl of a Salamanders Land Raider. As Space Marine vehicles tend to have a lot of hard edges, this technique suits them well.



This Necron Monolith has been given several applications of extreme highlights in subsequently lighter tones of green, over a black basecoat.

The deep edges on this Chaos Space Marine Vindicator are the result of extremely applied extreme highlighting, using Codex Grey to highlight the Chaos Black armor. This contrasts with the metallic details, which are the result of a silver wash over a base of Shining Gold.



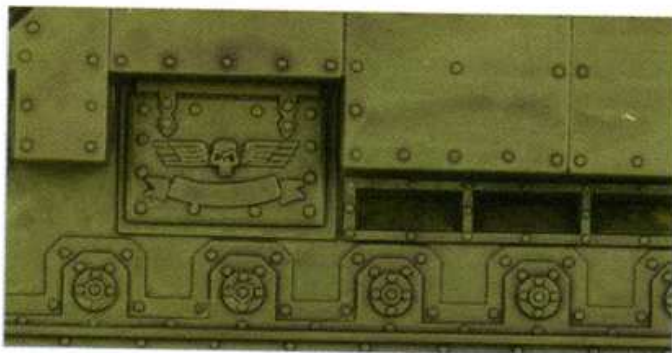
Here we see a combination of extreme highlighting and drybrushing. The edges have been highlighted orange, while a layer of dust has been drybrushed around the lower parts of the vehicle.



CITADEL WASHES

Washes are used to shade an area on a model, using a large brush to drench the entire surface so that the wash pools in the recesses, while lightly staining the raised details. They are semi-transparent as the pigment is held in a specially formulated medium.

Citadel Washes work best when they are used on a highly textured surface, and for this reason may not be suitable in all instances. They can be thinned down with water or varnish to adjust the overall coverage. In general, the less texture on the surface they are being applied to, the more they should be thinned down. The more texture, the thicker they can be applied.



A Badab Black wash, over a base coat of Knarloc Green. The wash pools heavily in the recesses, creating contrast and depth.



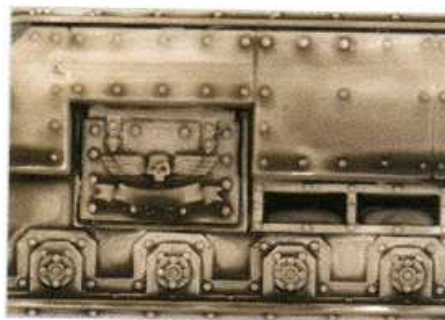
If the Badab Black is watered down, the overall effect is more subtle.

The second point to consider when using Citadel Washes is the basecoat over which they will be applied. The shading effect will be increased the lighter the basecoat, while applying a wash to a darker tone will produce a far more subtle shading effect.

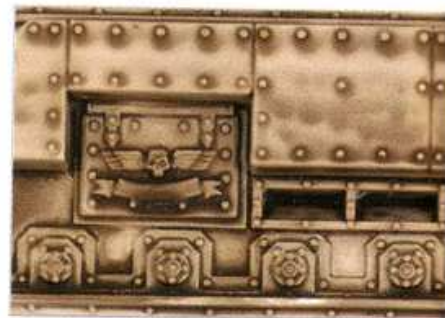
Unlike traditional inks, Citadel Washes are waterproof once they are dry. They can be mixed with any of the other paints in the Citadel Colour range, and dry to a matt finish that matches the rest of the finished paint job.



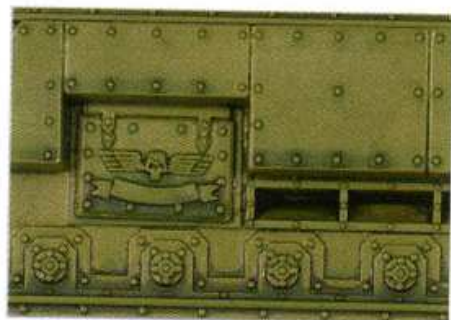
Thraka Green and Ogryn Flesh, over a Skull White basecoat.



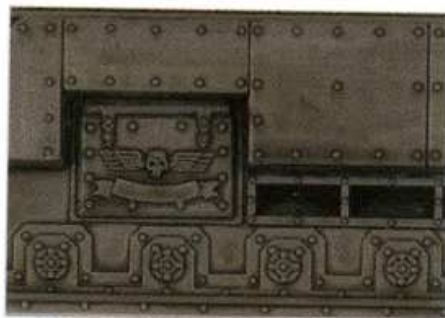
Badab Black over a Skull White basecoat.



Devlan Mud over a Skull White basecoat.



Thraka Green over a Gretchin Green basecoat.



Badab Black over Adeptus Battlegrey basecoat.



Devlan Mud over a Tausept Ochre basecoat.



The Chimera received an application of a 50/50 mix of Badab Black and Devlan Mud wash over a yellow basecoat. It was then drybrushed with Bleached Bone, making for a subtle pattern and picking out plenty of detail.

The corrosion was also achieved using Citadel Wash. A Detail Brush was used to paint thin, vertical lines of a 50/50 mix of Badab Black and Devlan Mud, creating the effect of dirt run-off having stained the most exposed surfaces of the vehicle's hull.



TIDE MARKS

Here we see the effect of a heavy wash on a Tau Devilfish. The Devilfish was first spray undercoated Skull White. The effect of a complex camouflage pattern was achieved by dabbing a brush heavily-loaded with Asurmen Blue wash over the entire surface. Because there was so much wash and little surface texture for it to key to, the wash dried with distinctive tidemarks all over the vehicle.



INTERIOR DETAILING

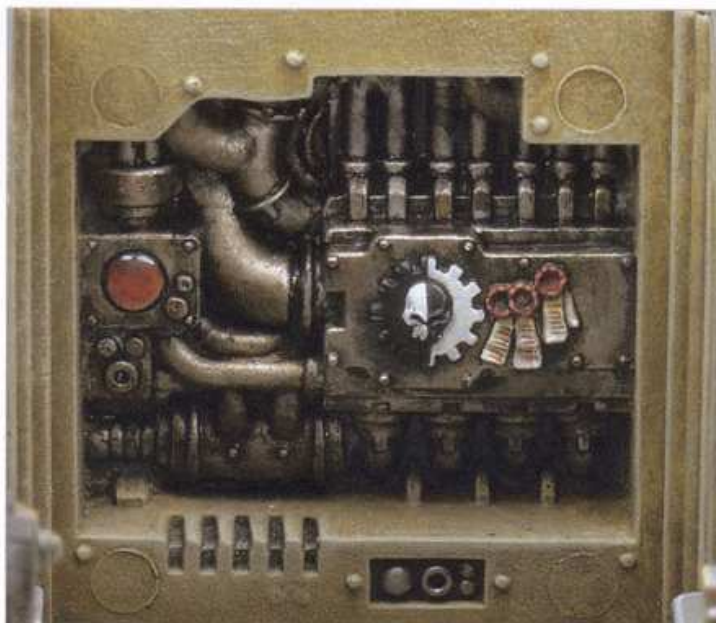
Many tanks come complete with modelled interiors – the Space Marine Rhino and Land Raider, and the Tau Devilfish and Hammerhead being particularly good examples. Many modellers like to add yet more detail, or even to create interiors on kits that don't come with them.

The trick to painting interiors is in the order of assembly and painting. By leaving the roof off of the vehicle it is possible to undercoat the whole model and then paint the interior. You can then undercoat the roof separately, and glue it on once the inside is painted. As the hatches and ramps of most vehicles are hinged, the interior can be viewed as and when you wish.

SPACE MARINE LAND RAIDER



The interior of the Land Raider is as detailed as the exterior, and visible thanks to the opening hatch.



The votive shrine.

SPACE MARINE RHINO



A Space Marine helmet has been placed on the seat, suggesting perhaps that the transported squad has disembarked in a hurry. Also note the Blood Ravens' Chapter symbol painted freehand onto the hull.



The Imperium's aquila symbol, applied as a transfer. The freehand lettering reads 'The Emperor Protects'.

CAMOUFLAGE PATTERNS

Camouflage patterning serves to disrupt an enemy's ability to target a tank. This may be achieved by blending the tank into its surroundings or by disrupting its outline so the enemy has a hard time zeroing in on his target.

When it comes to painting miniatures, however, an overly effective camouflage scheme is often undesirable, as your models won't stand out and all the detail will be difficult to discern. You'll notice that a lot of the camouflage schemes used in Games Workshop's photography are not the type that hide a tank – if they were you wouldn't be able to see the subject of the photo!

The main reason to apply camouflage to your model is aesthetic. The scheme should enhance the tank's appearance and create a striking impression. The pattern you choose might be tied to a particular environment, such as temperate woodlands or desert wastes, and often it is this setting that provides the initial inspiration for a good camo scheme.

When it comes to the Imperial Guard, any camouflage scheme you can imagine is possible. The Imperial Guard are drawn from a million and more worlds, each of which may support a wide range of environments.

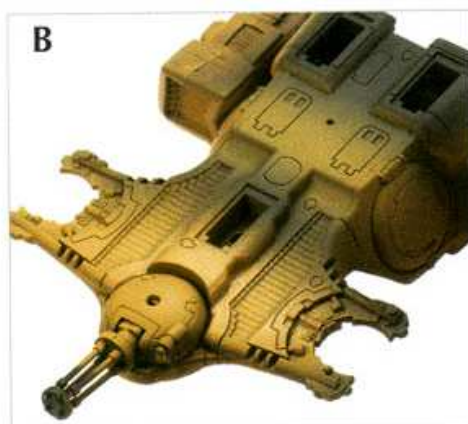
Inspiration for your camouflage scheme can be drawn from many places, including obvious sources such as illustrated books on military history. But keep in mind that real-world camouflage patterns don't always look particularly attractive at the scale of our model tanks. If you are looking for historical inspiration, remember this point and think outside the box – naval camouflage of the early 20th century may prove a good source, as may camouflage patterns used on military aircraft.

“When it comes to the Imperial Guard, any camouflage scheme you can imagine is possible.”

USING THE CITADEL SPRAY GUN TO APPLY CAMOUFLAGE

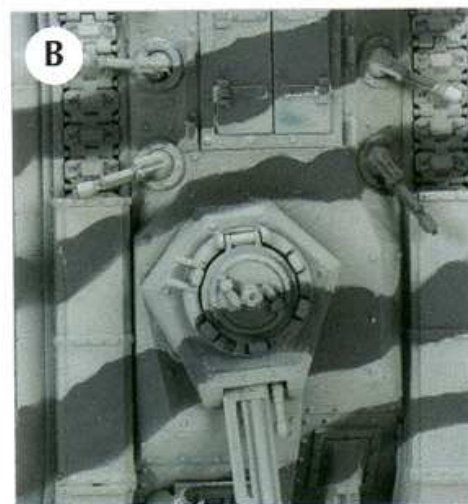
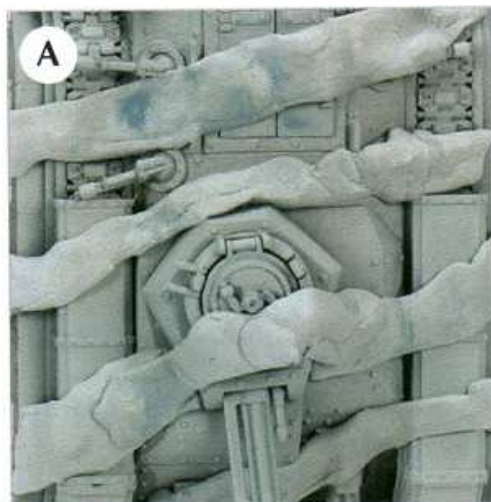
CONTROLLED BURSTS

Adjust the nozzle until you get a thin stream of paint, and then spray your pattern straight onto the tank in controlled lines (A). This will give you a bold design with a nice, feathered edge (B).



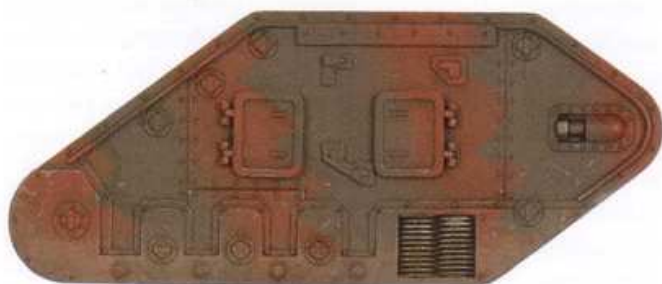
MASKING

This second method involves a large amount of adhesive putty, the kind you use to stick up posters with. Basecoat the tank as normal and, when dry, cover it in thick strips of adhesive putty, to act as a mask. Spray your tank a second colour (A). Now remove the putty – you should be left with a bold camo design, with a crisp edge (B).

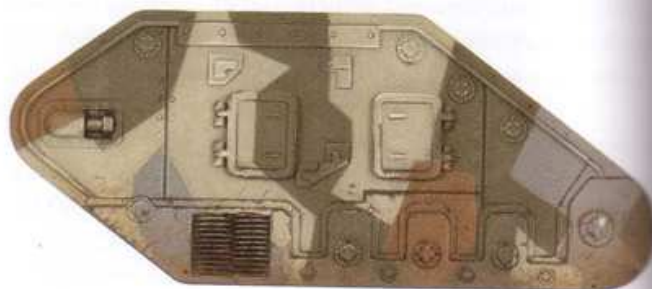


IMPERIAL GUARD CAMOUFLAGE

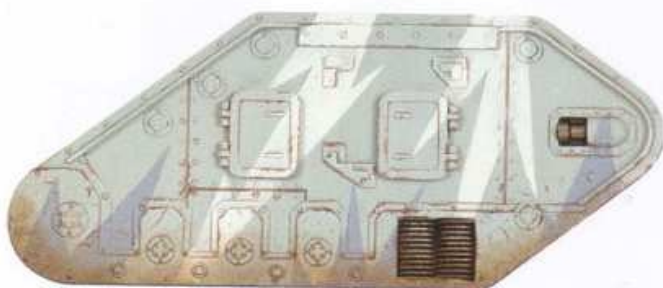
Here are some Imperial Guard camouflage schemes you might like to try or use as a starting point for your own vehicles. The stage-by-stage Leman Russ towards the end of the book demonstrates the application of the Cadian camo scheme.



This scheme uses a 50/50 mix of Adeptus Battlegrey and Chaos Black, over a Mechrite Red basecoat. The bands were applied with a Spray Gun, with jagged masking on one side of each.



An urban camouflage scheme, using jagged blocks of Catachan Green, Rotting Flesh, Bestial Brown and Codex Grey.



This ice world design utilises jagged lightning stripes of Skull White and Shadow Grey over an Astronomican Grey basecoat.



An unusual camouflage scheme, perhaps intended for an oxide desert. Bands of 50/50 Mechrite Red and Scorched Earth are applied over a base of Mechrite Red/Tanned Flesh, with Bleached Bone stripes.



Here's another example of an ice world camouflage pattern, in this case shown on a Leman Russ of the Valhallan Ice Warriors. The pattern was created by cutting masking tape into very fine, jagged strips.



Beached Bone marks with a Desert Yellow base, suitable for a range of environments from arid wastes to rolling grass lands.



Night world camouflage, made from wavy, horizontal 'tiger stripes' of Chaos Black over a Fenris Grey base.



A desert camouflage scheme, featuring Charadon Granite and Khemri Brown sprayed over a Kommando Khaki basecoat.



A camouflage design suited to fighting in a heavily forested zone, using stripes of Dark Angels Green, Snot Green and Camo Green.



This Chimera of the Catachan Jungle Fighters has a camouflage scheme suitable for a range of terrain, from the deadly jungles of the regiment's home, to any number of temperate worlds. Areas of Bubonic Brown and Dark Angels Green are separated by Chaos Black bands, applied with a large, fully loaded brush.

TAU CAMOUFLAGE

The Tau vehicles painted by the 'Eavy Metal team have been given a camouflage scheme quite different from that applied to the vehicles of the Imperial Guard. This is to give the Tau a distinctive look all their own.



Tau desert camouflage, consisting of Vermin Brown and Vomit Brown/Bleached Bone patterning over a Vomit Brown base. This is applied using the under drawing technique demonstrated opposite.



A disruption pattern suitable for a range of urban war zones. These patterns were also applied using the under drawing technique, using Shadow Grey mixed with Space Wolves Grey.

Tau camouflage patterns are built upon angular shapes and jagged lines. These serve to break up the vehicle's overall form within a particular terrain type. Such unusual patterns allow a massive range of experimentation.

The Tau Empire covers a small region of space, but their worlds vary enormously in terrain. Over the next few pages are some examples rendered in the style used by the Tau.

UNDER DRAWING

Tau camouflage lends itself well to the technique of under drawing. A pattern is drawn onto the model using a pencil, before being filled in with paint. In the examples on these pages, it has been used to create jagged blocks of colour, and this is the method used by the 'Eavy Metal team to paint Tau camouflage on the Studio's Tau vehicles. The examples given here apply to a range of environments, but by varying the combinations of colours anything is possible.





A basecoat of Vomit Brown is applied, and the camouflage pattern drawn on with a light pencil.



Three blocks are filled in to test the pattern. Here, one block is painted Vermin Brown, and the two surrounding blocks a 50/50 mix of Vomit Brown and Bleached Bone..

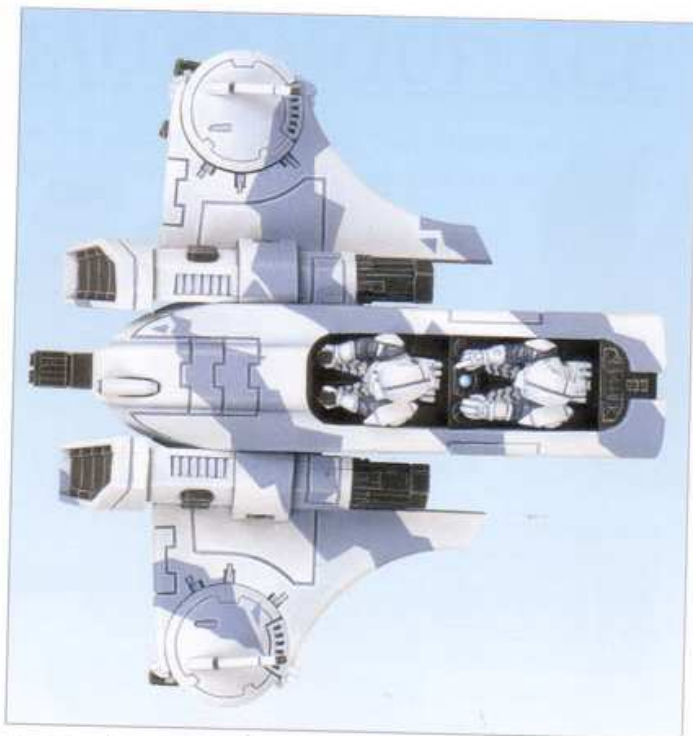


The remainder of the pattern is filled in.

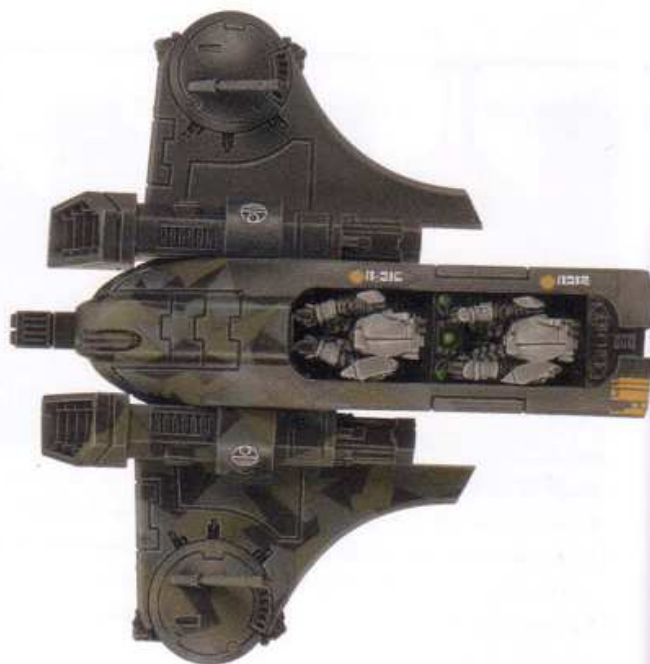
// Tau camouflage patterns are built upon angular shapes and jagged lines. These serve to break up the vehicle's overall form. //



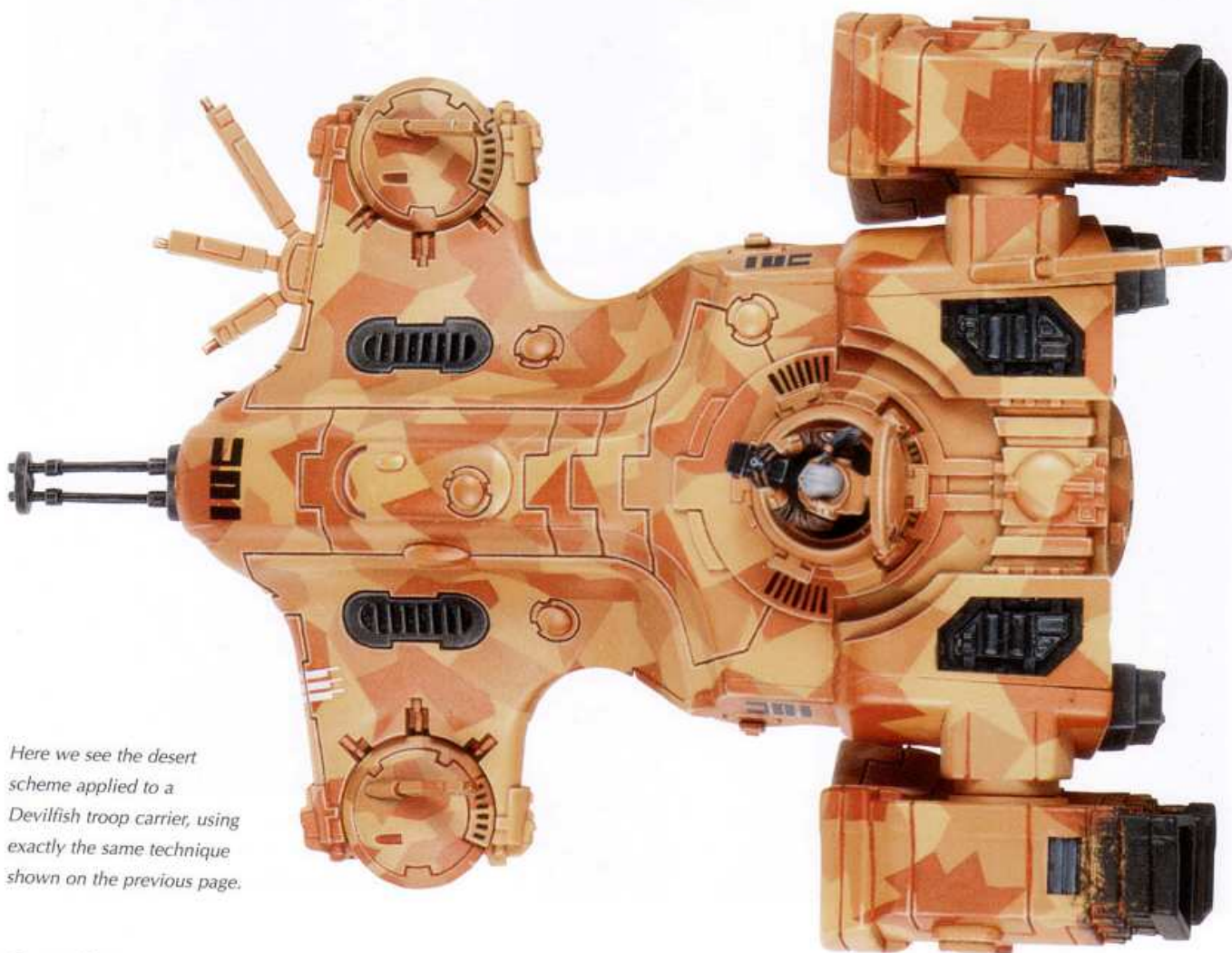
A Tau Sky Ray Missile Defence Tank and a Piranha Light Skimmer move through the ruins of an enemy city.



An ideal scheme for operating on a world of frozen seas. The jagged pattern was pencilled in over a base of Astronomican Grey highlighted up to Skull White. The stripes were then filled with a 50/50 mix of Space Wolves Grey and Shadow Grey.



A scheme suitable for a night world, made of jagged stripes of colours chosen because they are tonally very close to one another. The colours are a mix of Catachan Green, Ice Blue and Codex Grey, all darkened down with Chaos Black and applied over a Chaos Black basecoat.



Here we see the desert scheme applied to a Devilfish troop carrier, using exactly the same technique shown on the previous page.



Temperate zone camouflage, consisting of an Orkhide Shade pattern over a surface Green base.



Another night world scheme, consisting of Charadon Granite patterning over a base of Red Gore/Chaos Black/Liche Purple mix.



The crew on the Piranha are visible, and in this case bear the same base colour as their vehicle. They remain a focal point of the model, because the complex patterns have not been applied to them.



TRANSFERS

Warhammer 40,000 tanks come complete with a sheet of waterslide transfers, also known as decals. These allow for the quick and easy application of ready-made markings to your vehicles.

Before applying a waterslide transfer, it's important to prepare the area you are mounting onto. Make sure this area is smooth and the right size to take the design and any surrounding carrier film. If the area isn't entirely flat (perhaps there's a pesky rivet right where you want to place your decal!), you can file away any detail until it is smooth. If you wish, you can then apply a coat or two of 'Ardcoat varnish to the area to smooth out the paintwork even further, preventing bubbles appearing under the transfer and the carrier film appearing reflective later on.

The decals are printed onto a layer of carrier film. In some cases this film covers the entire sheet, so you will need to cut out the design, going as close to it as you can. Other sheets only have the carrier film on and immediately around the each design, so these don't need to be cut out quite so precisely.



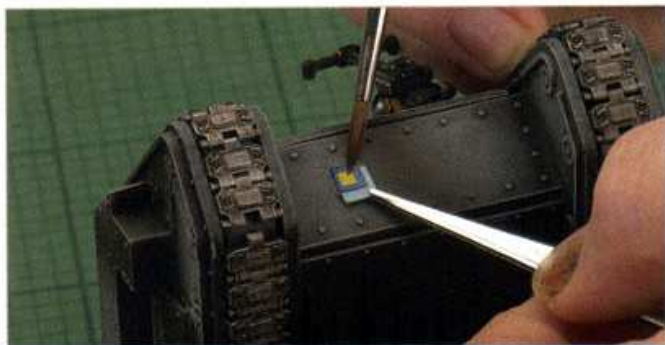
TIP

You can find plastic tweezers in many chemists. These are softer than metal ones and less likely to damage the delicate transfer.

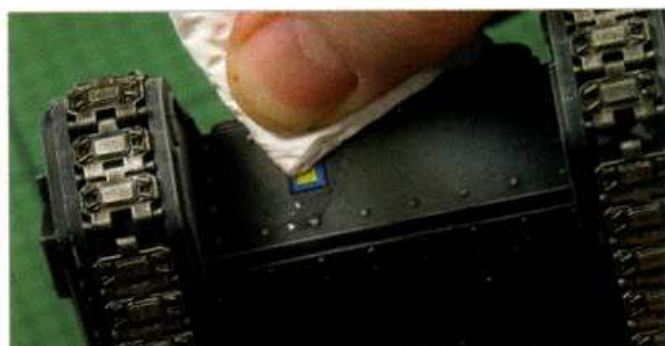
APPLYING A TRANSFER



1. Having cut your transfer from the sheet, you need to soak it in water for around 30 seconds to loosen the backing paper. Either put it into a pot of water or place it on a wet kitchen towel as shown here (this second method makes it a bit easier to handle the transfer).



2. Slide the decal partially off the backing paper and into position. Use a brush to hold the transfer in place, and then carefully slide away the backing paper away with your tweezers.



3. Dab the transfer and the area around it with some kitchen towel to remove any excess water. Take care not to accidentally tear it in the process.

If you need to, you can reposition the transfer by flooding the area with clean water and pulling the transfer across the surface. The transfer is easily damaged, however, so use a brush rather than a knife or similarly hard tool.

FINISHING THE TRANSFER

Once the transfer is applied there are a number of techniques you can use to finish it off. One is to paint over the transfer edging with the same colour as underneath to seamlessly blend the transfer with the model. You can also paint onto the design itself, adding highlights and shades to enhance the look. You can even paint out some elements of the design or add new ones.

When dry, it is a good idea to coat the transfer with watered-down 'Ardcoat gloss varnish, to protect it from wear or slippage. However, this creates a gloss finish, so you'll need to dull the area back down afterwards. If you plan to varnish the whole model, then simply spraying it with Purity Seal will do the job. Otherwise, you can brush over the area with some matt varnish.

Another point to consider is exactly when the transfer is applied in the order of painting. The best point at which to apply your transfers is after the basecoat has been applied and all highlighting has been completed. Later on in the process, you may wish to add chipping or weathering to the tank, and the marking would look very strange applied over these effects. Remember, markings get dirty and chipped along with the rest of the vehicle's bodywork, so don't neglect them at this stage.



Sometimes you will need to apply transfers to an awkward surface, such as a curve or a partially obscured part of a model. Perhaps an item of stowage is hanging over part of a marking. In these instances it is often necessary to cut the transfer with a hobby knife before applying it.

i TIP

Don't forget there are a number of transfer sheets in the Warhammer range too, any of which might prove a rich source for tank markings.

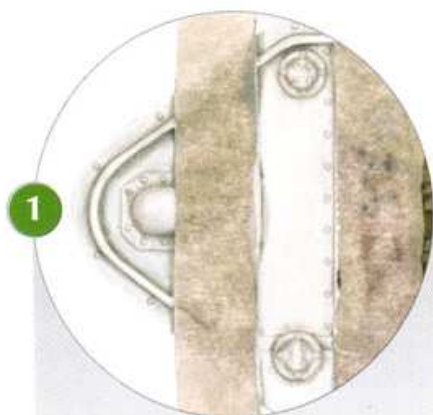


Each vehicle kit comes complete with a transfer sheet. Chances are you won't need all of them, but it's worth keeping the sheets for future projects.

The transfers on this Razorback have been placed so that the same symbols are visible from the front, side and above, aiding in its recognition by friendly forces.

MASKING

Masking provides an effective, simple and fast method of applying bands of colour to your tank. Once you have undercoated your model, choose and paint a basecoat. Using masking tape or adhesive putty, cover the surface in vertical strips. Paint your second colour on to the exposed areas of the model, then carefully remove the stained tape. Below is an example, using the red and white company stripes seen on many Imperial Guard tanks.



Apply masking tape to either side of the areas you wish to paint white. Apply an Astronominan Grey base, and highlight this with Skull White.



Once the white is dry, remove the tape and apply more over the white. Paint a Mechrite Red stripe, and highlight this with Blood Red.



The final result will be crisp, precisely applied markings.

Here's another way of applying markings using the masking technique. This method requires a steady hand when it comes to cutting out the tape, but as you can see, the result is well worth the effort. After undercoating, stick a section of masking tape to the part of the vehicle you want to decorate. Use 'low tack' masking tape, as this is less sticky so won't damage the paintwork when peeled off.

Using a pencil, draw your symbol onto the tape. There are plenty of symbols to copy in the codexes, or you can design your own if you're the artistic type. In this example the technique has been used to apply a Dark Angels Chapter icon. Once you're happy with your design, gently cut along the lines with a scalpel, and then peel back the waste tape. The painting stages are demonstrated below.



The Rhino was undercoated with Skull White spray paint. Once this was completely dry, the mask was applied.



The Rhino was then sprayed Chaos Black, and a basecoat of Dark Angels Green was applied.



Only after the green basecoat was highlighted was the mask removed, revealing the crisp, white icon.

The red company markings on this Vostroyan Basilisk were created by masking off the front of the track unit, as described opposite, and applying Red Gore stripes.



Masking was used to create the hazard strips on the fuel tanks and dozer blade, as well as the company markings on this Mordian Hellhound flame tank.

ELDAR MARKINGS

The grav tanks, walkers and skimmers of the Eldar display a wide range of camouflage and other markings. The technologically advanced aliens rely on arcane holo fields and the like to disguise their vehicles and put off the enemy's aim, so the markings painted on to their vehicles tend to be more stylised and decorative than other races.

Each of the major Eldar craftworlds has a range of colours and patterns associated with it, as described in the Codex, but there is still plenty of scope for experimentation. Here is an overview of some of the techniques you can use.



ALAITOC STIPPLING

The vehicles of the Alaitoc Craftworld, such as this Vyper, are often painted with a stippled blue pattern which is highly distinctive. Stippling is achieved by dabbing the loaded brush onto the surface, and twisting it as you brush across the model.



1 Apply a basecoat of Ultramarines Blue.



2 Stipple on some watered-down Regal Blue. Let this dry and then repeat two or three times.



3 Repeat the second step, using Enchanted Blue.

PAINTING



BIEL-TAN THORN PATTERN

The pattern seen on this Biel-Tan War Walker is used on many vehicles of the Craftworld. It is simple to paint and visually striking.



1 Paint a thin, wavy line in Chaos Black over a Dark Angels Green basecoat



2 Thicken the line with more Chaos Black.



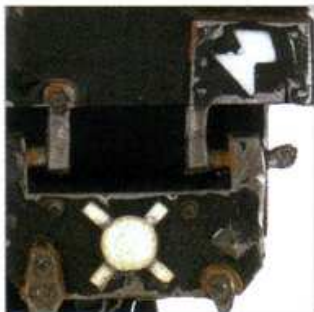
3 Add in the thorns by painting small triangles using a Fine Detail Brush.

ORK MARKINGS

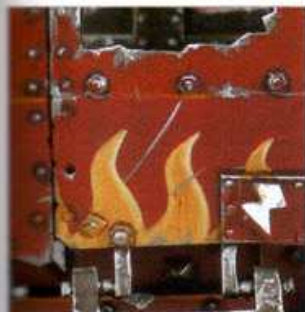
Orks paint their ramshackle vehicles any way they choose. They use a wide range of glyphs, many of which are detailed in *Codex: Orks*. They use camouflage too, but to them this is not a way of avoiding being seen – it's a proud statement of the bearer's martial prowess and as such tends to feature bold patterns and bright colours!

You can paint your Ork vehicles any way you like, but here are a few of the more common combinations of colours and markings associated with the major Ork clans:

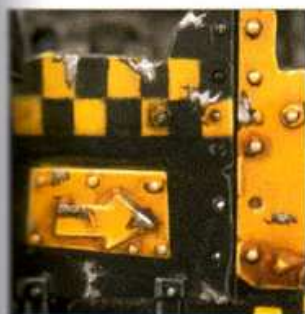
For suggested base, midtone and highlight colours for each clan, see the Tank Colour Guide at the end of the book. A full stage-by-stage demonstration of painting an Ork Trukk can be found on page 84.



The vehicles of the Goff Clan are predominantly black. They are afforded a striking appearance by the addition of white checks, applied to any and every surface. How to paint these Ork checks is shown in the stage-by-stage example on page 85.



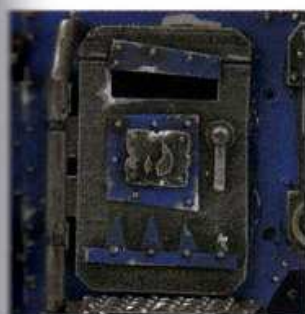
The Orks of the Evil Sunz Clan paint their vehicles red, in the age-old belief that 'red ones go faster'. Stylised flames are a common motif, as is the grimacing face symbol of the clan, painted here in intricate free-hand detail.



The Orks of the Bad Moons Clan are notorious show-offs. Their vehicles are often painted an eye-catching yellow. They also use checks, often in yellow on black, or black on yellow. These use the same technique as shown for the Goffs, using a base of Iyanden Darksun highlighted with Golden Yellow.



An example of a Blood Axe idea of camouflage. These stripes were created by placing strips of adhesive putty over the Chaos Black undercoat and spraying the model Adeptus Battlegrey. The putty was then removed and the inside of each stripe was painted Mechrute Red.



The Death Skulls believe 'blue ones are lucky'. Paint your Ork vehicles blue by drybrushing Boltgun Metal over Chaos Black, then Mordian Blue in the recesses. This creates the effect that a large amount of paint has worn away.



Many Ork vehicles are constructed of parts scavenged from enemy wrecks. This panel on the side of a Stompa has been painted Ultramarines Blue and had an Imperial Eagle from the Space Marine transfer sheet applied.

FREEHAND LETTERING AND DECORATION

Freehand is the application of all manner of artistic decoration to the surface of a model. Instead of painting existing details already on the miniature, freehand takes the form of designs, symbols and the like that use the surface of the vehicle as a blank canvas.

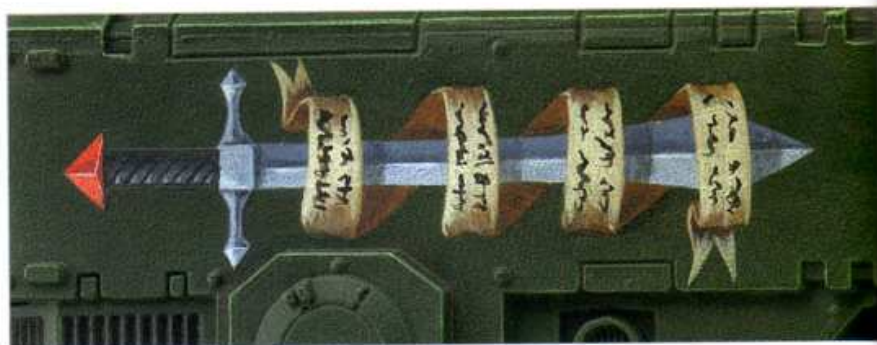
The key to mastering the freehand technique is a steady hand. A certain amount of artistic ability helps too, particularly if you are planning to paint detailed images such as those shown opposite. The most common form of freehand decoration is lettering, and learning how to apply names, slogans and the like to your tanks will allow you to individualise each vehicle within your collection.

For example, Space Marine vehicle kits come with an optional scrollwork component, onto which many people like to paint 'Imperial Gothic' words and phrases such as that shown in the example below. Imperial Guard tanks might have individual names, such as 'Indomitable', 'Emperor's Wrath' or 'Iron Duke'.

Those who truly master the technique take it to quite extraordinary levels, and the Golden Demon competition is replete with amazing examples of freehand decoration. Some people utilise the large, flat areas on the sides of the Land Raider and Baneblade kits to paint amazingly intricate images and designs.



The Crimson Fists Chapter symbol, painted freehand on a Dreadnought.



A sword and scroll image painted on the upper surface of a Dark Angels Land Raider. At this scale it is not necessary to paint the lettering in exact detail – squiggly lines do the job nicely!

HOW TO APPLY FREEHAND LETTERING

1. The first stage in applying freehand lettering is to use a soft pencil to mark out where the paint will be applied. Using a pencil affords far greater fine control than using a brush, and it's easier to erase than paint if you get it wrong on the first go. If you're unsure you'll have space for the whole word, start with the middle letter and add in the rest on either side.
2. The next stage is to apply the lettering over the pencil guide. This is best achieved in a colour that provides a high contrast with the background, in this case Chaos Black on a Bleached Bone background. Whichever paint you choose, water it down slightly, as this will make for a smoother application. If you find it easier to control, you could use a fine-tipped graphic pen for this stage.
3. In this example the lettering has been taken one step further, with a second set of lines added to the first to create a suitably 'gothic' lettering style.





Freehand lettering,
applied as
shown opposite.



In addition to extensive additional modelling
details, this Ultramarines Land Raider is
covered in intricate freehand detail.



4 Dark Angels Land Raider Crusader painted by Golden Demon competition
winner Kirill Kanaev, showing freehand detail of the highest standard.

VEHICLE CREW

Many tanks come with their own crew models. Although not essential, including them adds a sense of scale and an extra level of realism to your vehicle. Perhaps best of all, if the tank is part of a gaming army then the inclusion of crew models serves to link the vehicle with the infantry and other models in the force.

When painting your crew miniatures, it will often pay to assemble and paint them separately. You may find it useful to mount the crew model on some form of prop, such as a paint pot, while painting. Once both parts are painted the crew model can be attached to the tank and the join can be tidied up, before any varnish you wish to spray on is applied.



SPACE MARINE

Space Marine crew might be permanent custodians of the vehicle, or they might be transported passengers manning pintle-mounted weapons. If the former, the Space Marine vehicle accessory frame comes complete with a shoulder pad bearing the symbol of the Adeptus Mechanicus, linking the custodian to the Chapter's Techpriests.



IMPERIAL GUARD

Imperial Guard crew come with a range of details. They have two poses – one standing in the hatch, which can fire a pintle-mounted weapon, and the other seated low and peering out to observe the way ahead. The kit also contains a pair of standing legs, which are useful for crewmen standing on the fighting platform of the Basilisk.



CHAOS SPACE MARINE

Chaos Space Marine crew wear the same armour as the other members of their warband, and do not have any specific uniform details you need worry about – you can paint them however you like.



TAU

Tau vehicle crew consist of the tank's commander scanning the battlefield for the enemy. They wear a simplified version of the armour worn by Fire Warriors. As Tau vehicles and infantry are standing members of the same cadre, both can be painted in the same colour scheme.



ORKS

Ork crew are multipart models and the constituent parts are compatible with most other kits from the Ork range. This allows for a huge range of variation if you like to personalise your models to this degree, so no two crew need look alike!



SISTERS OF BATTLE

The crew of Sisters of Battle vehicles can be assembled manning the main weapon of an Immolator, or peering out of an open Rhino hatch. The kit comes with a clear plastic canopy, which can be mounted as a gun shield on the Immolator, or as a transparent top hatch on the Rhino. In either case, be sure to follow the advice given opposite.

TIP

If you plan to varnish your vehicle, then make sure you don't get any varnish on the clear plastic, as this will cause ugly misting and obscure all your lovingly painted crew. Either attach the canopy after you have varnished the model, or mask it off with adhesive putty or masking tape while you spray the model.

Another point to be aware of when fixing a clear plastic canopy such as those found on Eldar and Sisters of Battle vehicles, is the fact that superglue and plastic glue will cause misting on clear plastic components. Use PVA glue instead. Although this will take several hours to set, it won't ruin the paintwork around the join.



Visible crew give a vehicle an additional element of personality. This Eldar Falcon has two crew visible, each of which are different.



HOW TO PAINT CITADEL MINIATURES

For those looking for tips on painting their crew, detailed advice for beginners and experts alike can be found in *How to Paint Citadel Miniatures*.



CREW CONVERSIONS

These tank crew have all been converted in some way. Most have been 'kit-bashed' by combining the parts from several different kits in the same range.



A Tau commander, assembled using the head from a plastic Fire Warrior.



A Chaos Space Marine vehicle commander in the hatch of a Rhino.



A Chaos Space Marine embarks onboard a Rhino via the rear hatch.



A Tallarn Desert Raider crewman, made using the heavy weapons crew miniature.



Both hatches on this Hellhammer are fitted with heavy stubbers, manned by the tank's commander and a second crewman.



Cadian heavy weapons crew, used as gunners on a Basilisk.

DISMOUNTED CREW

Various Imperial Guard tanks come with a set of crewman's legs, allowing you to make disembodied crewmen. These can be combined with other parts, from the vehicle or other kits, to make some very interesting models.



Using arms from the Cadian infantry set, this crewman is constructed as if on guard duty.



This crewman is topping up a fuel tank. The model uses Cadian heavy weapon team legs, combined with parts from the Imperial Guard vehicle accessory frame.



This crewman is carrying a toolbox and hammer from the Baneblade kit. The hammer's shaft is made from brass rod, passed through a hole drilled through the hand with a pin vice.



A Catachan Jungle Fighter crewman, made by combining the Catachan kit with the tank crewman that comes in the Baneblade kit.



Vostroyan Firstborn, cut at the waist and converted to serve as crewmen on a Baneblade.



This miniature is a Warhammer Orc Warriors, cut at the waist and mounted on a Stompa's turret.



A Grot Rigger makes a hasty 'modification' on the Stompa's gubbinz.



A Tau vehicle commander, with a pistol made from a cut down pulse rifle. The left hand is sculpted from Green Stuff.



A Cadian Infantry Squad leader climbs atop a Baneblade to converse with the tank's gunner.



Commissar Yarrick, atop his personal Baneblade, the Fortress of Arrogance. In this case, the tank has been converted so that a miniature can be placed on the command deck.

BATTLE DAMAGE

Armoured vehicles are built to withstand the very worst the battlefields of the 41st Millennium can throw at them, but even the mightiest of ceramite behemoths may bear the scars of the countless battles they have fought in.

Adding battle damage to your tank gives an immediate sense of history – it's clearly as much a grizzled veteran as any elite trooper. How much damage (if any) you add will depend on your own tastes, but also on the nature of the army the tank belongs to. Space Marines, for example, rarely get bogged down in protracted campaigns, and their Techmarines take great care of their vehicles. Large amounts of damage may not be appropriate, though a few fresh wounds make sense. In contrast, the Imperial Guard's tanks may have served for decades, surviving the deaths of many crews. They may be damaged and patched up numerous times. They may bear

wounds for long periods, as repair crews and supplies may be unavailable or more needed elsewhere.

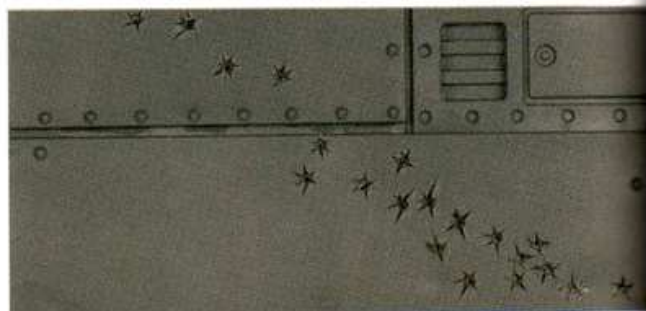
Eldar tanks are made of a unique material called wraithbone, which bears damage in a manner quite unlike the Imperium's vehicles. Tau vehicles share some of the characteristics of both the Space Marines and the Imperial Guard and their vehicles often look appealing with a little minor damage applied to them.

Battle damage includes a whole range of techniques. Some are simple painting effects, while others are small modelling projects in their own rights. Some can be thought of as simple wear-and-tear, while others represent high catastrophic damage sustained over many battles.



▲ Scratches

Real tanks are so heavy and solid that the slightest scrape or impact can cause damage. The resulting scratches are easy to simulate, using a scalpel to score the surface. It's worth considering how recent the damage actually is – fresh scratches wouldn't have any subsequent dust or rust weathering applied, while older ones would have accumulated dirt too.



▲ Bullet Holes

Bullet holes are easily applied – all you need to do is use a pin-vice to drill a series of shallow holes, and then 'nick' the edges with a scalpel. These look most convincing applied in a 'burst' pattern, as shown here, as if the firer were unleashing a spray of automatic fire at the tank.



▲ Bolter Damage

Bolter rounds are bullets that explode inside their target having penetrated its armour. To create this effect, drill some shallow holes with a pin vice. Then work around the holes with Green Stuff, shaping the putty into a bulge with a hole in the centre and a number of tears around the edge.



▲ Shrapnel

Shrapnel is chunks of metal that explode from a shell, so even a near-miss can inflict horrific damage. To pepper your tank with shrapnel, cut small grooves, and insert triangles of plasticard into each. These look effective when clustered together – the tighter the spread, the closer the shell would have exploded to the tank.

HOW MUCH BATTLE DAMAGE?



This Chimera features just a light amount of battle damage, in the form of bullet marks and scratches. These marks are entirely painted, by applying the marks first with Tin Bitz, and then Boltgun Metal inside each mark. This creates the effect of bare metal showing through the recently chipped paintwork.



In contrast, this Chimera has suffered all manner of abuses. Most of the damage is fully modelled, including the drilling of holes to represent damage caused by large calibre weaponry. Note the thrown track, achieved by constructing the multi-part tracks as if one link has broken and a section of treads has come loose. Also note the upturned ammo boxes on the deck, which, along with the open top hatch, suggest that the crew might have bailed out soon after the damage was inflicted, taking with them what kit they could carry and discarding the rest.



EXOTIC BATTLE DAMAGE

The battlefields of the 41st Millennium are fought over by all manner of enemies, bearing a staggering range of weapons. Damage inflicted by a meltagun would therefore look very different to damage caused by Tyranid bio-acid. This variation makes fertile ground for modellers looking to add an extra dimension to their tanks.



▲ Damaged Wraithbone

Eldar vehicles are manufactured not from metals, but in essence 'grown' from wraithbone. To create the effect of damaged wraithbone, this component was cut into using a modelling knife and holes drilled with a pin vice to create the effect of bone marrow. The wound was painted Scab Red, then washed Badab Black. A highlight of Tallarn Flesh was applied before the whole wound was washed Baal Red.



▲ Melta Damage

This was achieved by hollowing out a number of irregular circular wounds using a scalpel. A small amount of Green Stuff was pressed around the edges to give the impression of melted metal. Once the tank was painted, Chaos Black was drybrushed around the damage and one of the wounds was painted with layers of Red Gore, Blazing Orange and Sunburst Yellow to create the effect of melting hot metal.



▲ Claw Damage

This effect is achieved by drawing a razor saw across the surface of the vehicle. The inside of the wounds have been painted Boltgun Metal, as if the attack has gone through the painted outer surface into the metal armour below.



▲ Bio-acid Damage

Tyranid bio-weapons fire a highly corrosive liquid acid that eats its way through armour. To create this effect, drill lots of small holes into the surface using a pin-vice drill. Paint the scorch marks Chaos Black drybrushed with Boltgun Metal where the paint has peeled, and the acid with Goblin Green highlighted with Scorpion Green. Coat the green with Citadel Water Effect or Gloss Varnish.



◀ Hasty Repairs

This is a simple effect to achieve, and one appropriate to Imperial Guard vehicles that might have been hastily patched up between battles before being sent out to fight again. The grooves around the panel were scored into using a modelling knife and one corner of the panel carefully bent outwards. Small strips of plasticard were then glued on, and rivets made of plastic rod added.



This Hellhound has a broken-off segment of a Tyranid creature's claw lodged in its hull!

The claw damage is so deep it has torn right through the armour. This was achieved using a razor saw to make the deep grooves, which were then peeled back at the edge using needle nose pliers. If you ever cut through the outer surface of a model in this way, take extra care to make sure the insides are painted black, so no bare plastic is visible within.



The bio-acid damage was applied using the technique described opposite, but instead of green, Warlock Purple was used, mixed with Gloss Varnish. The acid has been made to appear as if it's running by attaching two thin plasticard rods and loading these with Gloss Varnish once painted.



Like the claw damage on the Hellhound, this melta damage has penetrated the Basilisk's outer skin.

WEATHERING

Although a tank might drive out of the Chapter forge or the regimental depot clean and polished, it is unlikely to remain in such a state for long. Simple wear and tear will cause light scratching and dents, while tracks get muddy and exhaust fumes cause unsightly black smudges. Place the tank on campaign, with the enemy trying to destroy it at every opportunity, and you can imagine how dirty and worn an armoured vehicle might soon become.

As with battle damage, how much weathering you choose to apply is entirely up to you. Apply as much or as little as you find visually pleasing. The character and background of the race to which the tank belongs can inform your choice. Space Marines are proud of their heraldic colours, using them to intimidate their enemies and announce their coming. Such colours and devices generally look better when only minimal weathering is applied.

The opposite is true of the barbaric Orks, who care little for the upkeep of their vehicles. A decent amount of weathering is entirely appropriate and enhances the tank no end.

In between these extremes are the Imperial Guard and the Tau, who in general take a more pragmatic approach to vehicle maintenance. Depending on the regiment, a little or

a lot of weathering might be appropriate for an Imperial Guard vehicle, while the grav tanks and skimmers of the Tau often look good with a little weathering, particularly around the large thrusters.

The amount of weathering that you apply might range from a subtle amount – perhaps a light drybrush of Bleached Bone to represent trail dust, all the way to caking the tracks of a tank in thick mud. There are plenty of techniques that can be explored, and the next few pages present a wide range of them for you to try out.

REALISTIC VS ARTISTIC WEATHERING

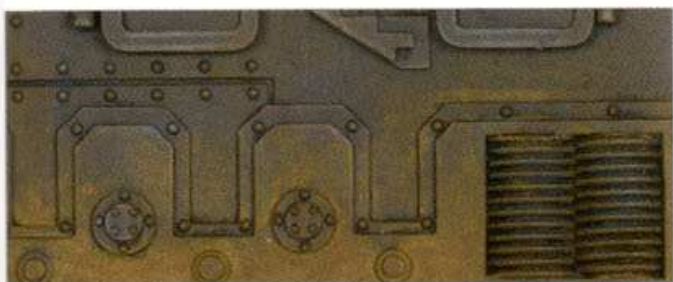
A tank that has just driven through a muddy field would be almost entirely covered in a thick layer of gloopy mud, completely obscuring most of the details and all of the markings. Although this is realistic, recreating such an effect at the scale we are dealing with on our models would just look like a mess to most people. Overly realistic application of dust effects can just make your tank appear as if it's been sitting lonely on a shelf for several months, while too much mud will look like you've dropped it in a puddle! Many modellers prefer instead to employ a more 'artistic' approach, applying as much weathering as they find looks attractive to their own eye.



The amount of weathering you apply can range from a subtle amount – perhaps a light drybrush to represent trail dust.

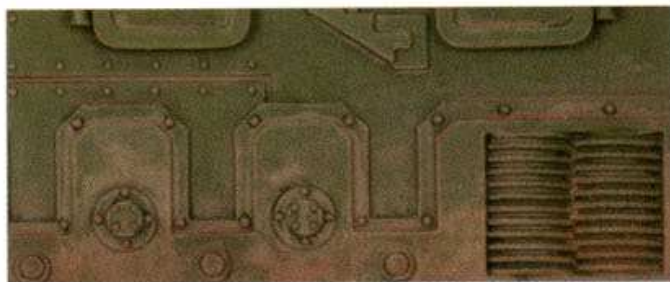


Or you can use a gloopy mixture of sand and PVA glue to apply a 'realistic' amount of mud to the rear of your vehicle.



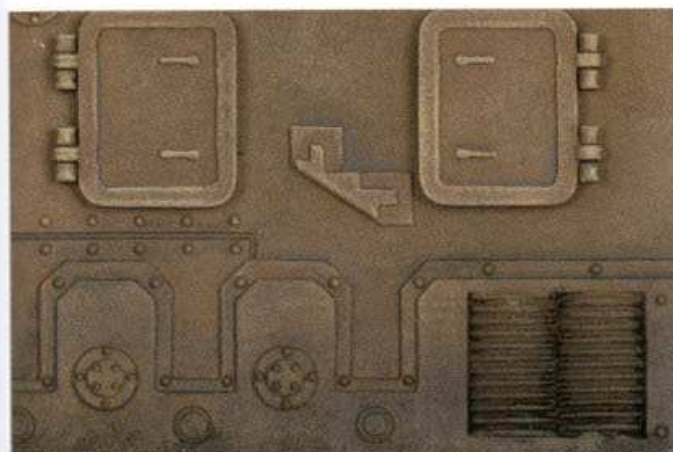
▲ Sand

Here is an example of a simple effect that simulates the build up of sand around the base of a tank's hull. This is a Desert Yellow drybrush, followed by Bleached Bone. Don't forget that deserts come in a variety of colours, not just sandy yellow – anything from a Martian red to an outlandish purple is possible.



▲ Clay

A tank operating in or near dried river beds might have a thin layer of dried clay built up on it. This can be drybrushed, using Calthan Brown or Graveyard Earth mixed with an equal amount of Scab Red. In addition, you can create the effect of ground-in dirt by thinning down the paint and applying it as a wash, so that it builds up in the recesses.



▲ Concrete dust

Just as clay works its way into every recess, the same is true of concrete dust. Many of the wars of the 41st Millennium are fought in urban terrain, and the vehicles of many armies fighting in such a warzone might be seen with a layer of concrete dust. In this example the lower areas of the hull have received a watered-down wash of Adeptus Battlegrey, and once this was dry, a drybrush of Codex Grey.

USING PASTELS



In addition to Citadel Paints, there are a number of other materials you may find useful for applying weathering effects. For example, artist's pastels are commonly available from art supply stores, and take the form of dense pigment compressed into the form of a stick. Experienced modellers often grind these up in a ceramic dish and use them as a 'weathering powder'. The resulting powder is brushed into the recesses and sealed in place with an application of Citadel Purity Seal spray varnish.

ROAD DUST



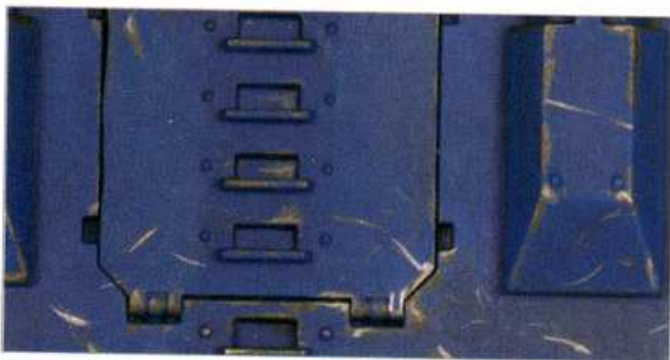
The fenders on this Ork Bike were heavily drybrushed Adeptus Battlegrey.



Codex Grey was then drybrushed over the Adeptus Battlegrey.



Finally, the very edges received a light drybrush of Astronomican Grey.



▲ Scratches

We have already seen that you can create deep scratches in the surface of a tank by scoring it with a hobby knife before painting. However, not all such scratches would be deep enough to damage the tank's metal surface – some, in fact most, would just damage the paintwork. Here, Boltgun Metal has been used to make broad marks on raised or exposed edges, within which have been painted thinner lines of Mithril Silver.



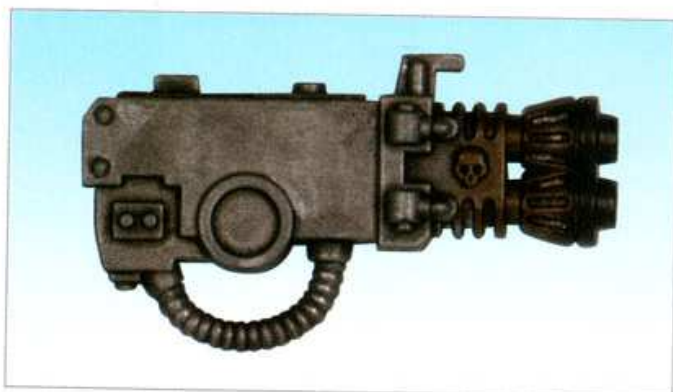
▲ Paint Damage

Markings are applied over the tank's basic paintwork, so may weather at a different rate. For example, a shallow scratch on a marking might reveal the base colour beneath, while a deeper gouge might go through to the metal. The example above uses the company identification stripes on the side of this Leman Russ. The Desert Yellow basecoat is showing through some of the scratches, while the bare metal (a 50/50 mix of Tin Bitz and Scorched Brown) shows through in others. Use the base colour to paint light scratches and a metallic colour to paint deeper ones.

DIRECTIONAL WEATHERING

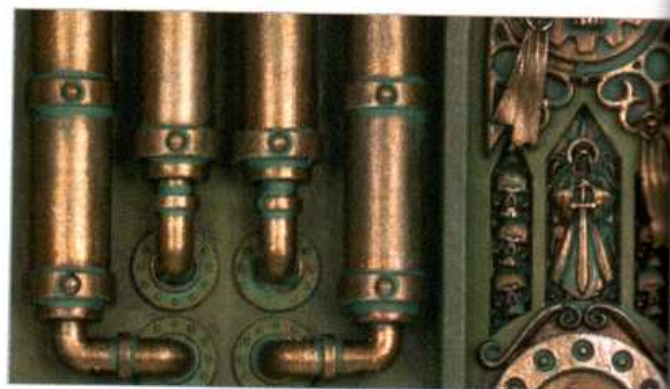


'Directional weathering' simulates wear and tear on fast-moving vehicles such as Space Marine Land Speeders. The effect plays up the fast moving nature of the vehicle. Apply scratches onto the vehicle's 'leading' edges, and keep them largely horizontal. In this example, the chips were painted first Codex Grey, then Boltgun Metal, then Mithril Silver.



▲ Scorched Metal

There are plenty of areas on a vehicle that might display scorching. The nozzles of heavy flamers, as shown above, are the most obvious, but the tips of almost any type of weapon might accrue burn marks. In addition to weapons, scorching can be applied to exhausts and thrusters. In terms of painting, the simplest method is to apply a drybrush of Chaos Black to the tip of the component. You can go further by applying a wash, such as Sepia Yellow or Devlan Mud, to simulate the effect heat has on metal.



▲ Verdigris

Verdigris is the name for the green corrosion seen on such metals as bronze, brass and copper. It is easily simulated by applying a watered-down wash of Hawk Turquoise to areas you wish to appear made of these metals. When called upon to paint verdigris, the 'Eavy Metal team apply a thin line of Hawk Turquoise lightened with Skull White, within the area where the wash settles. This can be seen on Joe Tomaszewski's Defiler in the Stage-by-Stage chapter.

This Space Marine Whirlwind of the Ultramarines Chapter has only light dust weathering and scratches applied. The dust is Chaos Black and Adeptus Battlegrey drybrushed around the tracks, while the scratches are small marks of Chainmail over larger marks of Boltgun Metal. This is just enough weathering to suggest the vehicle has seen action recently but has not been engaged in a protracted engagement.



This Chaos Space Marine Rhino of the Black Legion has a lot of scratches. A model with a black basecoat needs only Boltgun Metal marks to create such an effect. When applied to sharp edges, the scratches also serve as highlights, helping to define the shape of an otherwise dark vehicle.





▲ Rust

Many Imperial Guard and Ork vehicles are constructed of iron. Iron rusts, so any exposed or damaged surface will soon build up a reddish-brown patina, especially if it gets wet. The best Citadel Colour to use for rust is Vermin Brown. This can be applied by washing, drybrushing or stippling.

For an example, see the stage-by-stage example of painting an Ork Trukk on page 84.



▲ Modelled-on Rust

Heavily corroded, exposed iron builds up a thick surface texture of rust. In this example, a mixture of fine sand and PVA glue has been brushed around the edges of a dozer blade. The rust was painted Vermin Brown, and washed Devlan Mud, with Boltgun Metal applied at the very edges.



▲ Wet Mud

Real tanks operating in a temperate climate get absolutely covered in mud after only a short period of operation, due to the action of the tracks churning up the wet ground. If you want to add a little fresh mud (or a lot!) to your tank, create a mixture of Scorched Brown, sand and Citadel Water Effects liquid. Apply this liberally to the tracks and adjacent areas. The Chimera has mud chutes where the liquid would be ejected, so be sure to put a lot around this area.



▲ Run-off

A tank that has been exposed to the elements for some time may display run-off around raised features on its vertical surfaces. These take the form of dirty streaks of rust or dirt running down from such parts as rivets and weld-seams. In the example above, thin lines of Devlan Mud have been painted beneath the rivets and other details.

MUD SPLASHES ON A WALKER



1 Wash watered-down Bestial Brown over the Sentinel's feet, concentrating on the recessed areas.



2 Stipple Scorched Brown around the walker's feet.



3 Paint on small spots of a mix of Chaos Black, Scorched Brown and Gloss Varnish make the mud appear wet.

This Imperial Guard Demolisher of the Valhallan Ice Warriors has had several washes of muddy browns applied around the base of its hull, simulating the effect of the tracks churning up the snow and the earth beneath.



The whitewash has been painted as if it is a layer of winter camouflage applied over a darker green base, which, being only temporary, has started to wear away. This was achieved by dabbing slightly watered-down Skull White over a basecoat of Catachan Green, using not a brush but a small piece of sponge.

The mud is a mix of sand, PVA and Scorched Brown and Vermin Brown paint. Whereas fresh mud is simulated by adding Gloss Varnish to the mix, this mud is dried-in, an effect achieved by drybrushing with pure Vermin Brown once dry.



An Imperial Guard Basilisk with modelled-on, reddish mud coating the tracks and the base of the track units.



PUTTING IT ALL TOGETHER

This Imperial Guard Shadowsword has been painted using many of the techniques described in this chapter. The painter has taken the further step of bringing all of the techniques together to define the character and even the story of the vehicle.



The commander was made using the Steel Legion Commissar, cut off at the waist with a razor saw and glued to the legs of the Shadowsword Commander.



The vehicle's name was spelled out using transfers, each letter on the sheet carefully cut out and rearranged.



The bands on the Shadowsword's volcano cannon come from the Baneblade transfer sheet. Four bands indicate the tank belongs to the regiment's 'D' company.



The camouflage of the Steel Legion, applied with a Spray Gun in the colours shown in the guide at the end of this book.



Company stripes, applied using masking. The number refers to the tank's regiment, and the skull means it is a command tank.



This sponson has extra damage to suggest it is very unlucky. This is enhanced by the memorial scroll to past, dead, crewmen.



The personal heraldry of the tank's commander. The pegasus design is taken from the Warhammer Grail Knights transfer sheet.



all markings, taken from the Ork transfer sheet, representing destroyed Battlewagons, Stompas, and even a Gargant.



The antennae-mounted pennants are made from card. They were bent to suggest they are waving in a breeze, and then soaked in PVA so the shape became permanent. Each was then painted with company stripes and an army badge from the Space Marines transfer sheet added to the centre.



Last of all, extensive scratch and dust weathering was applied, using many of the methods described in this chapter.

GOLDEN DEMON™

The Golden Demon competition is Games Workshop's annual painting contest. Top painters from all over the world enter in the hope of winning the ultimate trophy – the Golden Demon Slayer Sword.

Leman Russ Vanquisher

by Paul Blades

This heavily weathered tank makes extensive use of the Paint Damage technique shown on page 71 – its winter camo flaking away to reveal the layer underneath.



SHOWCASE

Damocles Command Rhino

by Richard Stedman

The numerous additional details on this Rhino are resin parts available from Forge World.



Macharius Vanquisher

by Ben Jarvis

When entering the Golden Demon, many top painters mount their vehicles on a display base, often adding ground detail to set the scene.



Trench Raiders

by Kevan Downey

This Basilisk has been incorporated into an entire scene. The creation of such 'dioramas' combines elements of miniature and tank painting as well as terrain modelling.



STAGE BY STAGE

This section provides stage-by-stage examples of tanks painted in various different styles, every model by a different painter. Each of these utilise a number of the techniques shown in the previous chapters.

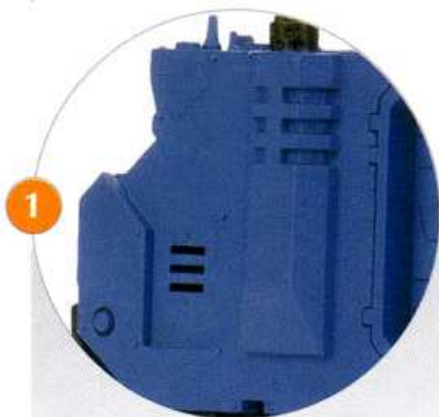
SPACE MARINE PREDATOR

FOCUS ON – FLAT COLOURS, METALLICS.

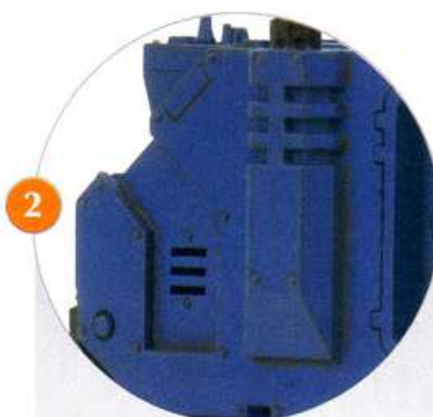
Many vehicles feature large areas of flat surface, which need to be painted in one colour. Presented here is a simple technique, and one well worth mastering. The 'Eavy Metal team's Anja Wettergren demonstrates how to apply a single, flat colour to a whole vehicle – in this case Ultramarines Blue to a Space Marine Predator.

This technique is practical to use on all of the vehicles in your collection, not just centrepiece or display models. As with many such techniques, the key is discipline and tidiness – as long as you take a methodical approach to each stage you can build up an impressive collection, and a visually striking gaming army.

BASE COAT



1 Ultramarines Blue was applied as a basecoat over a black undercoat, using the Citadel Spray Gun. Two coats were applied to achieve even coverage. Areas such as the tracks were then blocked out in Chaos Black again.



2 The Ultramarines Blue was shaded with Scorched Brown, warming the shadow. This was applied very dry using an old brush to almost stipple the paint into the recessed areas.

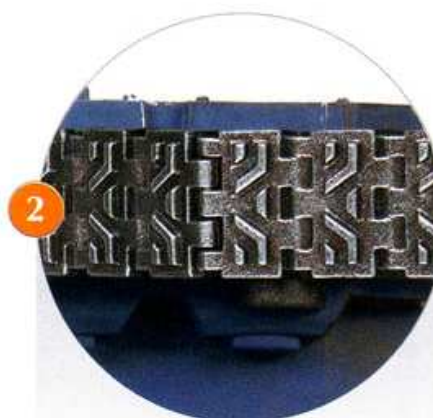


3 Shadow Grey was drybrushed very sparingly over the entire hull, in order to create a subtle surface texture. This was followed with Space Wolves Grey, drybrushed just on the most raised details and sharp edges.

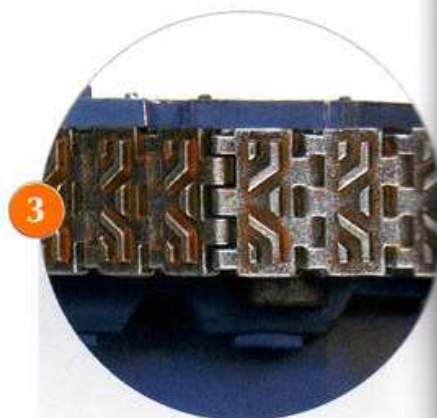
TRACKS



1 The tracks were painted with a basecoat of Tin Bitz.



2 A Boltgun Metal drybrush was applied.



3 Vermin Brown was washed into the recesses to represent rust and mud.

HEAVY BOLTERS AND GUN BARRELS



The heavy bolters, as well as any other metallic parts, were given a basecoat of Boltgun Metal.



A 50/50 mix of Badab Black and Devlan Mud wash was applied over the Boltgun Metal.



The extreme edges of the heavy bolter were picked out with a thin line of Mithril Silver.

GOLD DETAILS



Shining Gold mixed with a little Scorched Brown was applied as a base for the gold details.



The gold was given a wash of Devlan Mud.



Shining Gold was applied to the raised details.



The extreme details were picked out in a 50/50 mix of Shining Gold and Mithril Silver.

VISION BLOCKS



The lower edge and one side of each vision block was painted Scab Red.



A highlight of Blood Red was painted within the Scab Red.



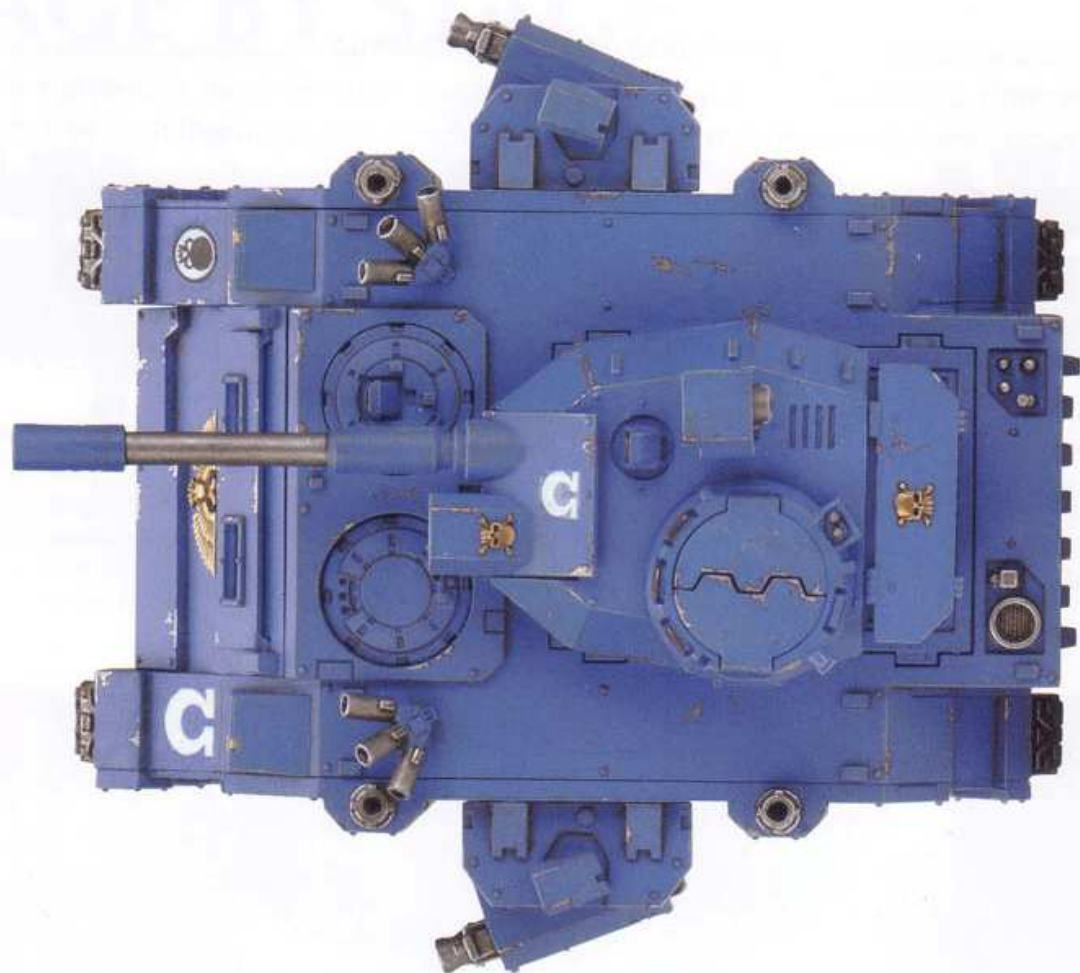
An even finer highlight, of Blazing Orange, was painted at the very edges.



A dot of Skull White was added where the glass would reflect the light.



As the turret wasn't glued down during assembly, but left free to rotate, it was painted separately. This allowed for better brush control when the later details were added.





STAGE-BY-STAGE

To finish off the tank, small scratches of Boltgun Metal within Chaos Black were added with a Fine Detail Brush. Transfers were applied as described in the Painting Techniques chapter, each placed in keeping with the other vehicles in the Studio's collection. This lends the army a strong, coherent feel when all the vehicle's are displayed together. After all other details had been applied, a light application of Chaos Black was drybrushed to the lowest areas of the tank and around the exhaust vents on the side, simulating grime built up from dust and fumes over the vehicle's livery.

IMPERIAL GUARD LEMAN RUSS

FOCUS ON – CAMOUFLAGE, WEATHERING.

There are many potential colours and patterns that could be applied to the tanks of the Imperial Guard. Here, 'Eavy Metal painter Keith Robertson shows us how the tanks of the Studio's Cadian army are painted.



A Dark Angels Green basecoat was applied over a Chaos Black undercoat, using the Citadel Spray Gun.



A heavy drybrush of Catachan Green was applied. This covered the entire surface, not just the raised details.



A 50/50 mix of Scorched Brown and Chaos Black was painted around the rivets, into the panel lines and into any other recesses.



Next, a 50/50 mix of Catachan Green and Camo Green was drybrushed over the previous stage.



The final stage of the base green was a light drybrush of Camo Green.

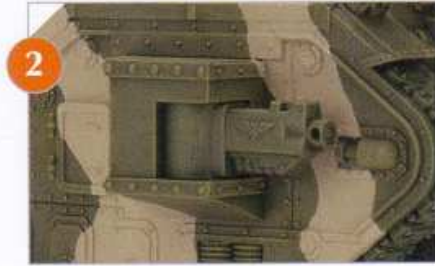
STAGE-BY-STAGE

PLANNING THE CAMOUFLAGE PATTERN

Before applying camouflage it pays to take some time to plan out where you want the bands to go and what sort of overall effect you are looking to achieve. Real tank camouflage patterns aren't intended to disguise the vehicle; after all, it's pretty difficult to hide something the size of a small building! Instead, the pattern is intended to throw off the aim of an enemy shooting at the vehicle, and one way of achieving this is by breaking up its shape and outline with contrasting colours and striking shapes.

Keith planned the stripes on the Leman Russ so that they would cut across the front corners, between the side sponson and the tracks. This would serve to break up the overall shape of the vehicle when viewed from an angle. Keith also carried the bands up onto the turret and across the dozer blade that would be mounted on the tank's prow. As the turret and dozer blade were sub-assembled, to be attached later on, this took a little extra planning, but was well worth the effort.

CAMOUFLAGE



1. Kommando Khaki was to be used for the camouflage bands, but this required a base of Dheneb Stone Foundation paint.

2. The Kommando Khaki was then painted over the entire application of Dheneb Stone.

3. Watered-down Graveyard Earth was painted around the rivets, panel lines and other recesses.

4. The bands were then drybrushed with a one thirds Kommando Khaki/two thirds Skull White mix.

BATTLE CANNON



The metal areas on the tank were blocked-out with Chaos Black, and then painted with Boltgun Metal.

A wash of Devlan Mud was applied, and when this was dry a second wash, of Badab Black, was layered over that.

Chainmail was drybrushed on, using a Medium Drybrush.



To create the effected of scorched metal, the front area of the gun barrel was washed Gryphon Sepia.

A second wash, this time of Devlan Mud was applied.

Finally, Badab Black was liberally washed over the battle cannon.

DOZER BLADE



The method Keith used to create the effect of chipping on the dozer is one of the most effective. It makes for a three dimensional effect that simulates layers of paint chipped away. The dozer blade was painted in the same basecoat and camouflage as the tank itself. Then, a kitchen scourer was used to stipple Bleached Bone where chips would occur (1). Next, Scorched Brown was painted inside the Bleached Bone (2). Boltgun Metal was then painted within the Scorched Brown (3). Finally, the edges of the eagle transfer were made to appear chipped too by painting Catachan Green or Kommando Khaki around its edges.

SEARCHLIGHT



The searchlight's lens was blocked-out with Chaos Black, and then painted Fenris Grey.



Several highlights of watered-down Shadow Grey were applied, with a small amount of Space Wolves Grey added to the last.



For the final highlight, a line of Space Wolves Grey was painted along the edge of the raised parts of the lens.

EXHAUST WEATHERING



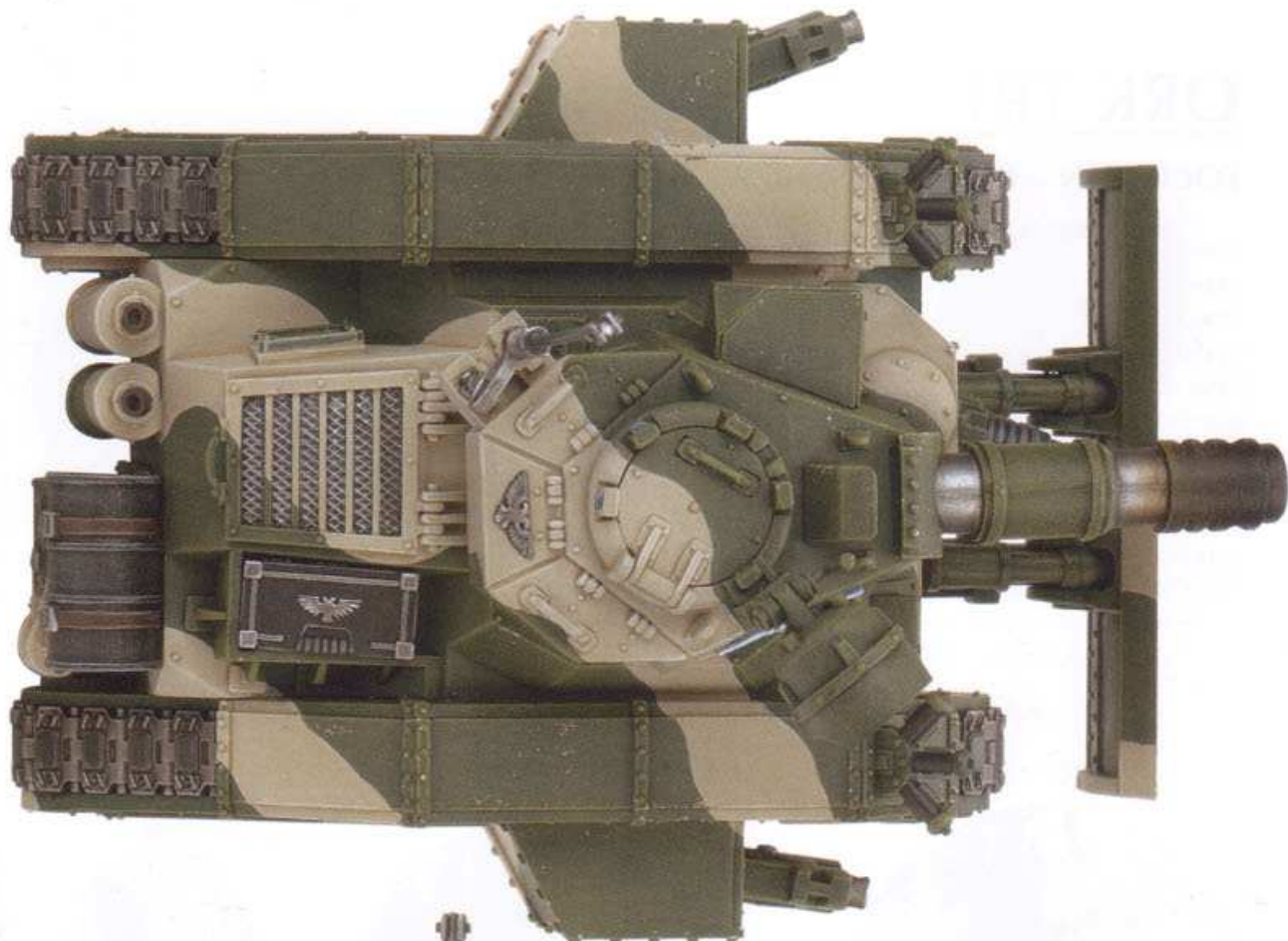
The metallic parts were given a wash of watered-down Snakebite Leather.



A second wash was applied, this time of watered-down Bestial Brown.



A watered-down, 50/50 mix of Scorched Earth and Chaos Black was applied to the tips of the exhausts.



Keith wanted to make sure the tank wasn't too obscured by the camouflage, so last of all he added transfers in places that would draw the eye and complement the overall shape. This is further achieved by the placement of the winged-skull icon on the turret's side.



ORK TRUKK

FOCUS ON – PATTERNS, CHIPPING, RUST.

Painting checks may look like a bit of challenge, so in this example Chris Peach shows us that it's not something to be afraid of trying. As with many of the techniques presented in this book you just need a little patience. Of course, Orks aren't known for their tidiness, so Chris wasn't too worried about getting his lines perfectly straight!

Also shown here is a Chris's method for painting rust. If you're a collector of Ork vehicles you'll soon work out your own technique, as you'll find yourself using it a lot.

BLACK



Codex Grey was lightly drybrushed over a Chaos Black undercoat.



Watered-down Scorched Brown was washed into the recesses.

CHIPPED METAL



The first stage of the chipping effect was to paint patches of Dark Flesh around the edges.



Boltgun Metal was painted within each patch of Dark Flesh.



Finally, Mithril Silver was painted in a very thin strip within the Boltgun Metal.

WHEELS



The wheels were drybrushed Scorched Brown, using a Large Drybrush.



A Medium Drybrush was used to apply a drybrush of Graveyard Earth.



A light dusting of Bleached Bone was drybrushed onto the upper areas.

CHECKS



1 The pattern was carefully marked out using Fortress Grey applied with a Fine Detail Brush.



2 The squares were then filled, again, with Fortress Grey.



3 The Fortress Grey was highlighted with Skull White before Chaos Black was used to tidy up any rough edges.

RUST



1 Blazing Orange was stippled over a basecoat of Bestial Brown.



2 Macharius Solar Orange was then stippled on, in fewer areas than the previous stage.



3 After a Devlan Mud wash was applied, Boltgun Metal chips were painted onto the edges.

GLYPHS



1 The glyphs were given a basecoat of Scab Red.



2 A highlight of Blood Red was painted around the edges.



3 A fine highlight, of Blazing Orange, was painted at the very edge.



STAGE-BY-STAGE



The Ork Trukk comes with two crew models: one is in a small cupola while the other one drives the vehicle. Chris painted these models in colours designed to complement those of the Trukk without clashing or standing out too much. Painting such miniatures is a huge topic, covered in great detail in the first book in the 'How To' series – *How to Paint Citadel Miniatures*.

CHAOS SPACE MARINE DEFILER

FOCUS ON – FREEHAND DETAIL, VERDIGRIS.

Joe Tomaszewski's Defiler showcases a cunningly simple, yet stunningly effective method of applying freehand decoration.

ARMOUR PLATING



A basecoat of Orkhide Shade was applied.



Knarloc Green was lightly drybrushed over the basecoat.



A Camo Green highlight was painted at the very edges of each plate.

BRASS



A basecoat of 50/50 Scorched Earth and Dwarf Bronze was applied.



The basecoat was drybrushed with Dwarf Bronze.



A light highlight of Mithril Silver was painted along the edges.

WEATHERING



Badab Black was washed over the Boltgun Metal of the claws.



Vermin Brown was stippled on to the claws.



Finally the edges of each claw were picked out in Chainmail.



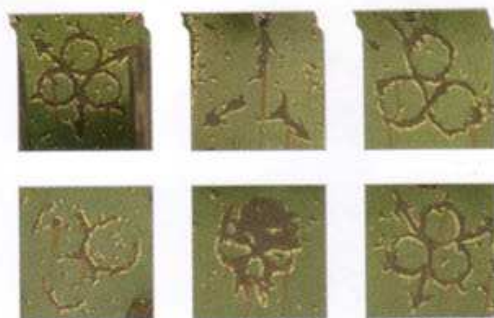
1 The armor was painted using a 50/50 mix of Scorched Brown and Rotting Flesh.



2 A 50/50 mix of Scorched Brown and Chaos Black was painted inside.



3 Rust streaks were added, using watered-down Vermin Brown.



Joe applied a different free hand design to each of the Defiler's six limbs.



ELDAR FALCON

FOCUS ON – BLENDING.

This Eldar Falcon, painted in the bold red of the Saim-Hann Craftworld, is the perfect showcase for the 'Eavy Metal team's blending method. Each successive layer is slightly watered down, increasing its translucence so that some of the previous layer shows through. Expert painter Darren Latham demonstrates this masterful technique.

This method has been developed over many years by a highly talented group of painters, and is designed to show models off to the best possible effect. Very few people will paint every model in their collection to such a high standard. Instead, the technique will often be saved for centrepiece, display or even competition standard models.

BASECOAT



The top and bottom parts of the hull were undercoated separately, and not glued together until finished.



A Red Gore basecoat was applied to the top half.

SHADING

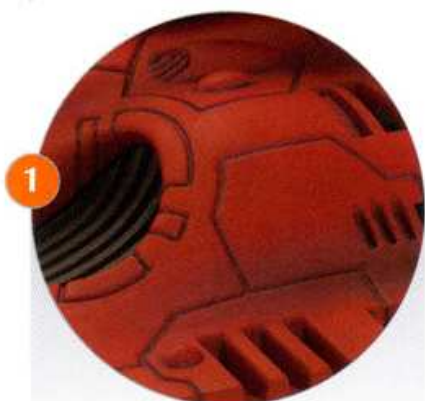


A thinned-down layer of Scab Red was applied to the recesses and dips.



An equal mix of Scab Red, Badab Black and Chaos Black was applied.

HIGHLIGHTING



The first highlight was a 50/50 mix of Mechrute Red and Blood Red.



The second highlight was equal parts Blood Red and Blazing Orange.



The next highlight was Blazing Orange, applied closer to the edges.



Next came an equal mix of Blazing Orange, Golden Yellow and Skull White.



More Golden Yellow and Skull White were added to the mix used in stage 4.



Even more Skull White was added to the mix and painted along the sharpest edges.

CHEVRONS



The area to which the chevrons was to be applied was masked off.



The chevrons were painted with Chaos Black.



Once the Chaos Black was completely dry, the masking tape was removed.



The first highlight was a 30/70 mix of Codex Grey and Chaos Black.



The second highlight was Codex Grey.



The third and final highlight was Fortress Grey.

SAIM-HANN ICON



The Saim-Hann craftworld symbol was drawn in using a soft pencil.



The symbol was filled using a 50/50 mix of Skull White and Astronomican Grey.



Skull White was used to tidy up and define the sharp edge of the symbol.



STAGE-BY-STAGE



The last step was to apply a layer of Citadel Purity Seal spray varnish. This was applied with the canopies off, as the clear plastic would mist up in contact with the varnish. Purity Seal is a satin varnish that lends a soft sheen, really bringing out rich colours such as those used here, as well as protecting the vehicle's surface from wear and tear. After all, if you've put this much effort into a model you really don't want it getting chipped!

TANK COLOUR GUIDE

IMPERIAL GUARD VEHICLES

	BASE	MIDTONE	HIGHLIGHT
CADIAN BASE GREEN	 Dark Angels Green	 Catachan Green	 Camo Green
CADIAN CAMO STRIPE	 Kommando Khaki	 Devlan Mud (Wash)	 Bleached Bone
CATACHAN BASE GREEN	 Dark Angels Green	 Knarloc Green	 Gretchin Green
CATACHAN CAMO STRIPE	 Tausept Ochre	 Ogryn Flesh (Wash)	 Bleached Bone
VOSTROYAN GREY	 Khemri Brown	 Desert Yellow	 Dheneb Stone
STEEL LEGION BASE GREY	 Codex Grey	 Fortress Grey	 Skull White
STEEL LEGION CAMO STRIPE	 Rotting Flesh	 Devlan Mud (Wash)	 Skull White

SPACE MARINE VEHICLES

TALLARN DESERT	 Graveyard Earth	 Desert Yellow	 Bleached Bone
ULTRAMARINES	 Ultramarines Blue	 Shadow Grey	 Space Wolves Green
SPACE WOLVES GREY	 Fenris Grey	 Shadow Grey	 Space Wolves Green
BLOOD ANGELS	 Mechrite Red	 Blood Red	 Macharius Solar Orange
DARK ANGELS	 Orkhide Shade	 Dark Angels Green	 Goblin Green
DARK ANGELS DEATHWING	 Iyanden Darksun	 Bleached Bone	 Skull White
DARK ANGELS RAVENWING	 Chaos Black	 Codex Grey	 Space Wolves Green
WHITE SCARS	 Codex Grey	 Astronomican Grey	 Skull White
SALAMANDERS	 Dark Angels Green	 Snot Green	 Scorpion Green
CRIMSON FISTS	 Regal Blue	 Ultramarines Blue	 Ice Blue

is a handy reference guide to use if you want to emulate the colours that the Lavy Metal team paint the vehicles of the most common armies.

ARMY: NECRONS

ARMY: SPACE MARINES

ARMY: ELDER

ARMY: ORK

	BASE	MIDTONE	HIGHLIGHT
GUN METAL (NECRONS)	 Boltgun Metal	 Badab Black (Wash)	 Chainmail
IRON	 Chainmail	 Devlan Mud (Wash)	 Mithril Silver
BRONZE	 Dwarf Bronze	 Gryphon Sepia (Wash)	 Mithril Silver
GOLD	 Shining Gold	 Ogryn Flesh (Wash)	 Burnished Gold
NURGLE	 Knarloc Green	 Gretchin Green	 Rotting Flesh
KHORNE	 Scab Red	 Red Gore	 Blood Red
TZEENTCH	 Necron Abyss	 Enchanted Blue	 Ice Blue
BIEL-TAN	 Dark Angels Green	 Snot Green	 Camo Green
ULTHWÉ	 Chaos Black	 Codex Grey	 Fortress Grey
IYANDEN	 Golden Yellow	 Gryphon Sepia (Wash)	 Skull White
ALAITOC	 Regal Blue	 Ultramarines Blue	 Enchanted Blue
SAIM-HANN	 Red Gore	 Blood Red	 Blazing Orange
EVIL SUNZ	 Mechrite Red	 Devlan Mud (Wash)	 Vomit Brown
BAD MOONS	 Iyanden Darksun	 Ogryn Flesh (Wash)	 Bleached Bone
GOFFS	 Chaos Black	 Scorched Brown (Wash)	 Codex Grey
DEATH SKULLS	 Mordian Blue	 Scorched Brown (Wash)	 Shadow Grey

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Imperial Guard Hellhound



HOW TO PAINT CITADEL TANKS

How to Paint Citadel Tanks provides a complete guide to assembling and painting all manner of vehicles of the 41st Millennium, using paints, glues and other materials from the Citadel range.

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- Essential tools and materials.
- Preparing and assembling your models.
- A detailed guide to a range of techniques, from drybrushing to freehand lettering.
- 5 complete stage-by-stage examples demonstrating some of the techniques described:
 - Space Marine Predator
 - Imperial Guard Leman Russ
 - Ork Trukk
 - Chaos Space Marine Defiler
 - Eldar Falcon



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